# National Center for Education Research

Publication Handbook

Publications from funded education research grants FY 2002 to FY 2013



Since its inception in 2002, the National Center for Education Research (NCER) in the Institute of Education Sciences (IES) has funded over 700 education research grants and over 60 education training grants. The research grants have supported have supported exploratory research to build theory or generate hypotheses on factors that may affect educational outcomes, development and innovation research to create or refine academic interventions, evaluation studies to test the efficacy and effectiveness of interventions, and measurement work to help develop more accurate and valid assessments, and the training grants have helped prepare the next generation of education researchers. NCER's education research grantees have focused on the needs of a wide range of students, from pre-kindergarten through postsecondary and adult education, and have tackled a variety of topic areas. The portfolio of research includes cognition, social and behavioral research, math, science, reading, writing, school systems and policies, teacher quality, statistical and research methods, just to name a few.

Each year, our grantees are contributing to the wealth of knowledge across disciplines. What follows is a listing of the publications that these grants have contributed along with a full listing of all the projects funded through NCER's education research grant programs from 2002 to 2013. The publications are presented according to the topic area and arranged by the year that the grant was awarded. Where applicable, we have noted related grant projects and project websites and have provided links to publications that are listed in the IES ERIC database. For grants that do not yet have associated publications in press or published, we include the word *Publications* as a placeholder to denote where future publications will occur during updates to this document.

Compiled in November, 2013

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# **COGNITION AND STUDENT LEARNING** 2002

#### R305H020031

The Influence of Students' Intelligence Beliefs On Attention, Information Processing, and Learning: A Neurophysiological Analysis

Columbia University
Mangels, Jennifer
Carol S. Dweck (Stanford University)

#### Publications:

Mangels, J.A., Butterfield, B., Lamb, J., Good, C.D., and Dweck, C.S. (2006). Why Do Beliefs About Intelligence Influence Learning Success? A Social Cognitive Neuroscience Model. *Social Cognitive and Affective Neuroscience (SCAN)*, *1*(2): 75–86.

#### R305H020035

#### **Longitudinal Impact of Community Violence**

Wayne State University Delaney-Black, Virginia

#### Publications:

Somers, C.L., Chiodo, L.M., Yoon, J., Ratner, H., Barton, E., and Delaney-Black, V. (2011). <u>Family</u> Disruption and Academic Functioning in Urban, Black Youth. *Psychology in the Schools*, 48(4): 357-370.

#### R305H020039

## **Improving Students' Comprehension and Construction of Arguments**

Northern Illinois University

Britt, Anne

Related IES Projects: <u>Creating a Usable Environment to Teach Argument Comprehension and Production Skills</u> (R305H050133)

#### **Publications:**

Britt, M.A., and Gabrys, G. (2004). Collecting Responses through Web Page Drag and Drop. *Behavior Research Methods, Instruments, and Computers*, 36(1): 52–68.

Britt, M.A., Wiemer-Hastings, P., Larson, A., and Perfetti, C.A. (2004). Automated Feedback on Source Citation in Essay Writing. *International Journal of Artificial Intelligence in Education*.

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Larson, M., Britt, M.A., and Larson, A. (2004). <u>Disfluencies in Comprehending Argumentative Texts.</u> *Reading Psychology*, *25*: 205–224.

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#### R305H020055

#### Age-Related Changes In Word Problem Solving and Working Memory

University Of California, Riverside Swanson, H. Lee

Related IES Projects: <u>Strategy Training</u>, <u>Problem Solving</u>, and <u>Working Memory in Children</u> with <u>Math Disabilities</u> (R324A090002)

#### **Publications:**

Swanson, H.L. (2004). Working Memory and Phonological Processing as Predictors of Children's Mathematical Problem Solving at Different Ages. *Memory and Cognition*, *32*: 648–666.

Swanson, H.L. (2005). Working Memory, Intelligence and Learning Disabilities. In O. Wilhelm and R.W. Engle (Eds.), *Handbook of Understanding and Measuring Intelligence* (pp.409–429). New York, NY: Sage Publications, Inc.

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Swanson, H.L. (2006). Working Memory and Dynamic Testing of Children with Learning Disabilities. In S. Pickering (Ed.), *Working Memory and Education* (pp. 125–156). San Diego, CA: Academic Press.

Swanson, H.L. (2008). Working Memory and Intelligence in Children: What Develops?. *Journal Of Educational Psychology*, 100(3): 581-602.

Swanson, H.L. (2010). Does the Dynamic Testing of Working Memory Predict Growth in Nonword Fluency and Vocabulary in Children with Reading Disabilities? *Journal Of Cognitive Education and Psychology*, 9(2): 139-165.

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Swanson, H.L., and Beebe-Frankenberger, M. (2004). <u>The Relationship between Working Memory and Mathematical Problem Solving in Children at Risk and Not at Risk for Serious Math Difficulties.</u> *Journal of Educational Psychology*, *96*: 471–491.

Swanson, H.L., and Jerman, O. (2006). Math Disabilities: A Preliminary Meta-Analysis of the Published Literature on Cognitive Processes. In T. Scruggs and M. Mastropieri (Eds.), *Applications of Research Methodology, Volume 1 — Advances in Learning and Behavioral Disabilities* (pp. 285–314). Bristol, UK: Elsevier Ltd.

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Swanson, H.L., and Jerman, O. (2007). The Influence of Working Memory on Reading Growth in Subgroups of Children with Reading Disabilities. *Journal Of Experimental Child Psychology*, 96(4): 249-283.

Swanson, H.L., Howard, C.B., and Saez, L. (2006). <u>Do Different Components of Working Memory Underlie Different Subgroups of Reading Disabilities?</u> *Journal of Learning Disabilities, 39*(3): 252–269.

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Swanson, H.L., Jerman, O., and Zheng, X. (2009). Math Disabilities and Reading Disabilities: Can They Be Separated? *Journal Of Psychoeducational Assessment*, 27(3): 175-196.

Swanson, H.L., Kehler, P., and Jerman, O. (2010). <u>Working Memory, Strategy Knowledge, and Strategy Instruction in Children with Reading Disabilities</u>. *Journal of Learning Disabilities*, *43*(1): 24–47.

Swanson, H.L., Zheng, X., and Jerman, O. (2009). <u>Declarative and Procedural Memory in Danish Speaking Children with Specific Language Impairment</u>. *Journal of Learning Disabilities*, *42*(3): 260–287.

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#### R305H020060

<u>Using Cognitive Analyses to Improve Children's Math and Science Learning</u>
Carnegie Mellon University
Siegler, Robert

Project Website: <a href="http://www.psy.cmu.edu/~siegler/publications-all.html">http://www.psy.cmu.edu/~siegler/publications-all.html</a>

Related IES Projects: <u>Improving Children's Pure Numerical Estimation</u> (R305H050035) and <u>Improving Children's Numerical Understanding</u> (R305A080013)

#### Publications:

Booth, J.L., and Siegler, R.S. (2006). <u>Developmental and Individual Differences in Pure Numerical Estimation</u>. *Developmental Psychology*, *42*(1): 189–201.

Booth, J.L., and Siegler, R.S. (2008). <u>Numerical Magnitude Representations Influence Arithmetic Learning</u>. *Child Development*, 79: 1016–1031.

Laski, E.V., and Siegler, R.S. (2007). <u>Is 27 a Big Number? Correlational and Causal Connections among Numerical Categorization, Number Line Estimation, and Numerical Magnitude Comparison</u>. *Child Development, 76*: 1723–1743.

Lin, X., Siegler, R.S., and Sullivan, F.R. (2010). Students' Goals Influence Their Learning. In D. D. Preiss, R. J. Sternberg (Eds.), *Innovations In Educational Psychology: Perspectives On Learning, Teaching, and Human Development* (pp. 79-105). New York, NY US: Springer Publishing Co.

Opfer, J.E., and Siegler, R.S. (2004). <u>Revisiting Preschoolers' Living Things Concept: A Microgenetic Analysis of Conceptual Change in Basic Biology</u>. *Cognitive Psychology*, 49(4): 301–332.

Opfer, J.E., and Siegler, R.S. (2007). <u>Representational Change and Children's Numerical Estimation</u>. *Cognitive Psychology*, *55*: 169–195.

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<u>Children's Numerical Knowledge through Playing Number Board Games.</u> *Child Development, 79*: 375–394.

Ramani, G.B., and Siegler, R.S. (2011). Reducing the Gap in Numerical Knowledge Between Low- and Middle-Income Preschoolers. *Journal Of Applied Developmental Psychology*, *32*(3): 146-159.

Siegler, R.S. (2003). Relations between Short-Term and Long-Term Cognitive Development. *Psychological Science Agenda*, *16*: 8–10.

Siegler, R.S. (2004). Turning Memory Development Inside Out. Developmental Review, 24: 469–475.

Siegler, R.S. (2004). <u>U-Shaped Interest in U-Shaped Development — and What It Means</u>. *Journal of Cognition and Development*, *5*(1): 1–10.

Siegler, R.S. (2006). Microgenetic Analyses of Learning. In W. Damon and R.M. Lerner (Series Eds.) and D. Kuhn and R.S. Siegler (Vol. Eds.), *Handbook of Child Psychology: Volume 2: Cognition, Perception, and Language* (6th ed., pp. 464–510). Hoboken, NJ: Wiley.

Siegler, R.S. (2009). Improving the Numerical Understanding of Children from Low-Income Families. *Child Development Perspectives, 3*: 118–124.

Siegler, R.S., and Araya, R. (2005). A Computational Model of Conscious and Unconscious Strategy Discovery. In R.V. Kail (Ed.), *Advances in Child Development and Behavior* (Vol. 33, pp. 1–42). Oxford, UK: Elsevier.

Siegler, R.S., and Booth, J.L. (2004). <u>Development of Numerical Estimation in Young Children</u>. *Child Development*, 75 (2): 428–444.

Siegler, R.S., and Booth, J.L. (2005). Development of Numerical Estimation: A Review. In J.I.D. Campbell (Ed.), *Handbook of Mathematical Cognition* (pp. 197–212). Boca Raton, FL: CRC Press.

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Siegler, R.S., and Svetina, M. (2006). What Leads Children to Adopt New Strategies?: A Microgenetic/Cross-Sectional Study of Class Inclusion. Child Development, 77: 997–1015.

#### R305H020061

#### **Optimizing Resistance to Forgetting**

University of California, San Diego Pashler, Harold E.

Related IES Projects: Optimizing Resistance to Forgetting (R305H040108) and Harnessing Retrieval Practice to Enhance Learning in Diverse Domains (R305B070537)

#### **Publications:**

Cepeda, N., Coburn, N., Rohrer, D., Wixted, J., Mozer, M., and Pashler, H. (2009). Optimizing Distributed Practice: Theoretical Analysis and Practical Implications. Experimental Psychology, 56(4): 236–246.

Cepeda, N., Vul, E., Rohrer, D., Wixted, J., and Pashler, H. (2008). <u>Spacing Effects in Learning: A Temporal Ridgeline of Optimal Retention</u>. *Psychological Science*, *19*: 1095–1102.

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Kang, S.K., Pashler, H., Cepeda, N.J., Rohrer, D., Carpenter, S.K., and Mozer, M.C. (2011). Does Incorrect Guessing Impair Fact Learning? *Journal Of Educational Psychology*, 103(1): 48-59.

Pashler, H., Cepeda, N.J., Wixted, J.T., and Rohrer, D. (2005). When Does Feedback Facilitate Learning of Words? Learning, Memory, and Cognition, 31(1): 3–8.

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Mozer, M.C., Pashler, H., and Homaei, H. (2008). Optimal Predictions In Everyday Cognition: The Wisdom Of Individuals Or Crowds?. *Cognitive Science*, *32*(7): 1133-1147.

Rohrer, D. (2009). <u>The Effects of Spacing and Mixing Practice Problems</u>. *Journal for Research in Mathematics Education*, 40: 4–17.

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Rohrer, D., Taylor, K., Pashler, H., Wixted, J.T., and Cepeda, N.J. (2005). <u>The Effect of Overlearning on Long-Term Retention</u>. *Applied Cognitive Psychology*, *19*(3): 361–374.

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Vul, E., and Pashler, H. (2008). Measuring The Crowd Within: Probabilistic Representations Within Individuals. *Psychological Science*, *19*(7): 645-647.

Vul, E., Harris, C., Winkielman, P., and Pashler, H. (2009). Puzzlingly High Correlations In Fmri Studies Of Emotion, Personality, and Social Cognition. *Perspectives On Psychological Science*, *4*(3): 274-290.

#### R305H020088

#### **Learning From Symbolic Objects**

Northwestern University Uttal, David

Related IES Projects: Understanding and Facilitating Symbolic Learning (R305H050059)

#### **Publications:**

McNeil, N., Uttal, D.H., Jarvin, L., and Sternberg, R.J. (2009). <u>Should You Show Me The Money?</u> <u>Concrete Objects Both Hurt and Help Performance On Mathematics Problems</u>. *Learning and Instruction*, *19*: 171–184.

Sternberg, R. (2008). Applying Psychological Theories To Educational Practice. *American Educational Research Journal*, 45: 150–165.

Uttal, D.H., and Meadow, N.G. (2013). The Psychology Of Practice: Lessons From Spatial Cognition. In D. Reisberg (Ed.), *The Oxford Handbook Of Cognitive Psychology* (pp. 874-885). New York, NY US: Oxford University Press.

Uttal, D.H., Fisher, J.A. and Taylor, H.A. (2006). Words and Maps: Developmental Changes In Mental Models Of Spatial Information Acquired From Descriptions and Depictions. *Developmental Science*, 9(2): 221-235.

Uttal, D.H., Gentner, D., Liu, L.L., and Lewis, A. R. (2008). Developmental Changes In Children's Understanding Of The Similarity Between Photographs and Their Referents. *Developmental Science*, 11(1): 156-170.

Uttal, D.H., Meadow, N.G., Tipton, E., Hand, L.L., Alden, A.R., Warren, C., and Newcombe, N.S. (2013). The Malleability Of Spatial Skills: A Meta-Analysis Of Training Studies. *Psychological Bulletin*, *139*(2): 352-402.

Uttal, D.H., Sandstrom, L.B., Newcombe, N.S. (2006). One Hidden Object, Two Spatial Codes: Young Children's Use Of Relational and Vector Coding. *Journal Of Cognition and Development*, 7(4): 503-525.

#### R305H020113

#### **Introducing Desirable Difficulties for Educational Applications in Science**

University of California, Los Angeles Bjork, Robert Marcia Linn (University of California, Berkeley)

#### **Publications:**

Bjork, R.A., and Bjork, E.L. (2006). Optimizing Treatment and Instruction: Implications of a New Theory of Disuse. In L-G. Nilsson and N. Ohta (Eds.), *Memory and Society: Psychological Perspectives* (pp. 109–133). Psychology Press: Hove and New York.

Bjork, R.A., and Linn, M.C. (2006). The Science of Learning and the Learning of Science: Introducing Desirable Difficulties. *The APS Observer*, 19(3): 29-39.

Casperson, J.M., and Linn, M.C. (2006). Using Visualizations to Teach Electrostatics. *American Journal of Physics*, 74(4): 316–323.

Kornell, N., and Bjork, R.A. (2007). The Promise and Perils of Self-Regulated Study. *Psychonomic Bulletin and Review, 6*: 219–224.

Linn, M.C. (2003). WISE Research: Promoting International Collaboration. In D. Psillos, P. Kariotoglou, V. Tselfes, E. Hatzikraniotis, G. Fassoulopoulos, and M. Kallery (Eds.), *Science Education Research in the Knowledge-Based Society* (pp. 297–308). Boston: Kluwer Academic Publishers.

Linn, M.C. (2005). WISE Design for Lifelong Learning: Pivotal Cases. In P. Gärdenfors and P. Johansson (Eds.), *Cognition, Education and Communication Technology*. Mahwah, NJ: Erlbaum.

Linn, M.C. (2006). WISE Teachers: Using Technology and Inquiry for Science Instruction. In E.A. Ashburn and R.E. Floden (Eds.), *Meaningful Learning Using Technology: What Educators Need to Know* (pp. 45–69). New York: Teachers College Press.

Linn, M.C. (2006). The Knowledge Integration Perspective on Learning and Instruction. In R.K. Sawyer (Ed.), *The Cambridge Handbook of the Learning Sciences* (pp. 243–264). New York: Cambridge University Press.

Linn, M.C., and Eylon, B.S. (2006). Science Education: Integrating Views of Learning and Instruction. In P.A. Alexander and P.H. Winne (Eds.), *Handbook of Educational Psychology* (2nd ed., pp. 511–544). Mahwah, NJ: Erlbaum.

Linn, M.C., Husic, F., Slotta, J., and Tinker, R. (2006). Technology Enhanced Learning in Science (TELS): Research Programs. *Educational Technology*, 46(3): 54–68.

Linn, M.C., Lee, H.S., Tinker, R., Husic, F., and Chiu, J.L. (2006). Teaching and Assessing Knowledge Integration in Science. *Science*, *313*: 1049–1050.

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Richland, L.E., Bjork, R.A., and Finley, J.R. (Forthcoming). *Desirable Difficulty in Science Acquisition: Implications for Learning and Retention. Cognition and Instruction.* 

Richland, L.E., Bjork, R.A., Finley, J.R., and Linn, M.C. (2005). Linking Cognitive Science to Education: Generation and Interleaving Effects. In B.G. Bara, L. Barsalou and M. Bucciarelli (Eds.), *Proceedings of the 27th Annual Conference of the Cognitive Science Society* (pp. 1624). Mahwah, NJ: Erlbaum.

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### 2003 R305H030016

#### The Neural Markers of Effective Learning

Carnegie Mellon University Anderson, John

Related IES Projects: <u>A Theory-Driven Search for the Optimal Conditions of Instructional Guidance in Algebra Tutor</u> (R305A100109)

#### **Publications:**

Anderson, J.R. (2007). *How Can the Human Mind Occur in the Physical Universe?* New York, NY: Oxford University Press.

Anderson, J.R., Anderson, J.F., Ferris, J.L., Fincham, J.M., and Jung, K.J. (2009). Lateral Inferior Prefrontal Cortex and Interior Cingulate Cortex are Engaged at Different Stages in the Solution of Insight Problems. *PNAS Proceedings of the National Academy of Sciences of the United States of America*, 106 (26): 10799–10804.

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#### R305H030031

#### Increasing Learning By Promoting Early Abstract Thought

George Mason University Pasnak, Robert

Related IES Projects: <u>An Economical Improvement In Literacy and Numeracy</u> (R305B070542) and <u>Focusing on the Efficacy of Teaching Advanced Forms of Patterning on First Graders'</u> <u>Improvements in Reading, Mathematics, and Reasoning Ability</u> (R305A090353)

### **Publications:**

Greene, M. R., Pasnak, R., and Romero, S. (2009). <u>A Time Lag Analysis of Temporal Relations between Motivation, Academic Achievement, and Two Cognitive Abilities.</u> *Early Education and Development, 20*: 799–825.

Hendricks, C., Trueblood, L., and Pasnak, R. (2006). Effects of Teaching Patterning to 1<sup>st</sup>-Graders. *Journal of Research in Childhood Education*, 21(1): 79-89.

Kidd, J.K. Pasnak, R., Gadzichowski, M., Ferral-Like, M., and Gallington, D. (2008). <u>Enhancing Early Numeracy by Promoting the Abstract Thought Involved in the Oddity Principle, Seriation, and Conservation</u>. *Journal of Advanced Academics*, *19*: 164–200.

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Pasnak, R., Kidd, J.K., Gadzichowski, M.K., Gallington, D.A., and Saracina, R.P. (2008). <u>Can Emphasizing Cognitive Development Improve Academic Achievement?</u> *Education Research*, *50*: 261–276.

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### R305H030141

A Multidisciplinary Study of Analogical Transfer in Children's Mathematical Learning University of California, Los Angeles Holyoak, Keith

### **Publications:**

Holyoak, K.J. (2005). Analogy. In K.J. Holyoak, R.G. Morrison (Eds.), *The Cambridge Handbook Of Thinking and Reasoning* (p. 117-142). New York, NY US: Cambridge University Press.

Holyoak, K.J. (2008). Relations In Semantic Memory: Still Puzzling After All These Years. In M.A. Gluck, J.R. Anderson, S.M. Kosslyn (Eds.), *Memory and Mind: A Festschrift For Gordon H. Bower* (pp. 141-158). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.

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Morrison, R.G., Doumas, L.A.A., and Richland, L.E. (2006). <u>A Computational Account of Children's Analogical Reasoning: Balancing Inhibitory Control in Working Memory and Relational Representation</u>. In

R. Sun and N. Miyake (Eds.), *Proceedings of the 28th Annual Conference of the Cognitive Science Society*. Mahwah, NJ: Erlbaum.

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Richland, L.E., Holyoak, K.J., and Stigler, J.W. (2004). <u>Analogy Use in Eighth-Grade Mathematics Classrooms</u>. *Cognition and Instruction*, *22*: 37–60.

Richland, L.E., Morrison, R.G., and Holyoak, K.J. (2004). Developmental Change in Analogical Reasoning: Evidence From a Picture Mapping Task. In K. Forbus, D. Gentner, and T. Regier (Eds.), *Proceedings of the 26th Annual Conference of the Cognitive Science Society* (pp. 1149–1154). Mahwah, NJ: Erlbaum.

Richland, L.E., Morrison, R.G., and Holyoak, K.J. (2006). <u>Children's Development of Analogical Reasoning: Insights From Scene Analogy Problems.</u> *Journal of Experimental Child Psychology*, 94: 249–271.

Richland, L.E., Zur, O., and Holyoak, K.J. (2005). Cross-Cultural Differences in Use of Comparisons: Imagery and Visual Cues. In B.G. Bara, L. Barsalou, M. Bucciarelli (Eds.), *Proceedings of the 27th Annual Conference of the Cognitive Science Society* (pp. 1149–1154). Mahwah, NJ: Erlbaum.

Richland, L.E., Zur, O., and Holyoak, K.J. (2007). Cognitive Supports for Analogy in the Mathematics Classroom. *Science*, *316*: 1128–1129.

### R305H030170

### **Improving Monitoring Accuracy Improves Learning From Text**

University of Illinois at Chicago Wiley, Jennifer Keith Thiede (Boise State University)

Related IES Projects: <u>Improving Metacomprehension and Self-Regulated Learning From Scientific Texts</u> (R305B070460)

### **Publications:**

Dunlosky, J., and Thiede, K.W. (2004). Causes and Constraints of the Shift-To-Easier-Materials Effect in the Control of Study. *Memory and Cognition*, 32: 779–788.

Dunlosky, J., Hertzog, C., Kennedy, M., and Thiede, K. (2005). The Self-Monitoring Approach for Effective Learning. *Cognitive Technology*, *10*: 4–11.

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Jee, B., Wiley, J., and Griffin, T.D. (2006). Expertise and the Illusion of Comprehension. In R. Sun and N. Miyake (Eds.), *Proceedings of the 28th Annual Conference of the Cognitive Science Society*. Mahwah, NJ: Erlbaum.

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Wiley, J., Griffin, T.D., and Thiede, K.W. (2005). Putting the Comprehension in Metacomprehension. *Journal of General Psychology*, *132*: 408–428.

### R305H030175

### Study Enhancement Based on Principles of Cognitive Science

Columbia University Metcalfe, Janet

Project Website: <a href="http://www.columbia.edu/cu/psychology/metcalfe/jm.html">http://www.columbia.edu/cu/psychology/metcalfe/jm.html</a>

Related IES Projects: <u>The Effect of Metacognition on Children's Control of Their Study and of Their Cognitive Processes</u> (R305H060161)

### **Publications:**

Metcalfe, J. (2006). Principles of Cognitive Science in Education. APS Observer, 19: 27.

Metcalfe, J., and Kornell, N. (2007). Principles of Cognitive Science in Education: The Effects of Generation, Errors and Feedback. *Psychonomic Bulletin and Review, 14* (2): 225–229.

Metcalfe, J., Eich, T.S., and Castel, A.D. (2010). Metacognition Of Agency Across The Lifespan. *Cognition*, 116(2): 267-282.

Metcalfe, J., Kornell, N., and Son, L.K. (2007). A Cognitive-Science Based Program to Enhance Study Efficacy in a High and Low-Risk Setting. *European Journal of Cognitive Psychology*, 19 (4): 743–768.

### R305H030229

### From Cognitive Models of Reasoning to Lesson Plans for Inquiry

Carnegie Mellon University Klahr, David

Related IES Projects: <u>Training in Experimental Design: Developing Scalable and Adaptive Computer-based Science Instruction</u> (R305H060034) and <u>Promoting Transfer of the Control of Variables Strategy in Elementary and Middle School Children via Contextual Framing and Abstraction</u> (R305A100404)

### **Publications:**

Klahr, D., and Li, J. (2005). Cognitive Research and Elementary Science Instruction: From the Laboratory, to the Classroom, and Back. *Journal of Science Education and Technology*, *14* (2): 217–238.

Li, J., and Klahr, D. (2006). The Psychology of Scientific Thinking: Implications for Science Teaching and Learning. In J. Rhoton and P. Shane (Eds.), *Teaching Science in the 21st Century*. National Science Teachers Association Press.

Li, J., Klahr, D., and Siler, S. (2006). What Lies Beneath the Science Achievement Gap: The Challenges of Aligning Science Instruction with Standards and Tests. Science Educator, 15: 1–12.

### R305H030235

Lapses In Meta-Cognition During Reading: Understanding Comprehension Failure
University of Pittsburgh

Reichle, Erik Jonathan Schooler

Related IES Projects: Mind-Wandering During Reading (R305A110277)

#### **Publications:**

Hart, R.E., and Schooler, J.W. (2006). Increasing Belief in the Experience of an Invasive Procedure That Never Happened: The Role of Plausibility and Schematicity. *Applied Cognitive Psychology*, *20*(5): 661-669.

Mooneyham, B.W., and Schooler, J.W. (2013). The Costs and Benefits Of Mind-Wandering: A Review. *Canadian Journal Of Experimental Psychology/Revue Canadianne De Psychologie Expérimentale*, 67(1): 11-18.

Pollatsek, A., Reichle, E.D., and Rayner, K. (2006). <u>Serial Processing Is Consistent With the Time Course of Linguistic Information Extraction From Consecutive Words During Eye Fixations in Reading: A Response to Inhoff, Eiter, and Radach (2005).</u> *Journal of Experimental Psychology: Human Perception and Performance, 32*: 1485–1489.

Pollatsek, A., Reichle, E.D., and Rayner, K. (2006). <u>Tests of the E-Z Reader Model: Exploring the Interface between Cognition and Eye-Movement Control</u>. *Cognitive Psychology*, *52*: 1–56.

Reichle, E.D., Reineberg, A.E., and Schooler, J.W. (2010). Eye Movements During Mindless Reading. *Psychological Science*, *21*(9): 1300-1310.

Reichle, E.D., Pollatsek, A., and Rayner, K. (2007). Modeling the Effects of Lexical Ambiguity on Eye Movements During Reading. In R.P.G. Van Gompel, M.F. Fischer, W.S. Murray, and R.L. Hill (Eds.), *Eye Movements: A Window on Mind and Brain* (pp. 271–292). Oxford: Elsevier.

Schooler, J.W., Reichle, E.D., and Halpern, D.V. (2004). Zoning Out While Reading: Evidence for Dissociations Between Experience and Metaconsciousness. In D.T. Levin (Ed.), *Thinking and Seeing: Visual Metacognition in Adults and Children* (pp. 203–226). Cambridge, MA.

Schooler, J.W., Smallwood, J., Christoff, K., Handy, T.C., Reichle, E.D., Sayette, M.A. (2011). Meta-awareness, Perceptual Decoupling and the Wandering Mind. *Trends in Cognitive Sciences*, *15*(7): 319-326.

Smallwood, J., and Schooler, J.W. (2006). The Restless Mind. Psychological Bulletin, 132: 946–958.

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Smallwood, J., Fishman, D.J., and Schooler, J.W. (2007). Counting the Cost of an Absent Mind: Mind-Wandering as an Unrecognized Influence on Educational Performance. *Psychonomic Bulletin and Review*, *14*: 230–236.

Smallwood, J., McSpadden, M., and Schooler, J.W. (2007). The Lights Are on But No One's Home: Meta-Awareness and the Decoupling of Attention When the Mind Wanders. *Psychonomic Bulletin and Review*, 14: 527–533.

Smallwood, J., McSpadden, M., Luus, B., and Schooler, J.W. (2008). Segmenting the Stream of Consciousness—The Psychological Correlates of Temporal Structures in the Times Series Data of a Continuous Performance Task. *Brain and Cognition*, 66 (1): 50–56.

Smith, R., Keramatian, K., Smallwood, J., Schooler, J.W., Luus, B., and Christoff, K. (2006). Mind-Wandering With and Without Awareness: An fMRI Study of Spontaneous Thought Processes. In R. Sun and N. Miyake, *Proceedings of the Twenty-Eighth Annual Meeting of the Cognitive Science Society* (p. 804).

### R305H030266

Training Indexing To Enhance Meaning Extraction In Young Readers
University of Wisconsin, Madison
Glenberg, Arthur

#### **Publications:**

Brown, M.C., McNeil, N.M., and Glenberg, A.M. (2009). Using Concreteness In Education: Real Problems, Potential Solutions. *Child Development Perspectives*, *3*(3): 160-164.

Glenberg, A.M. (2005). Lessons from the Embodiment of Language: Why Simulating Human Language Comprehension is Hard. In A. Cangelosi, G. Bugmann, R. Borisyuk (Eds.), *Modeling language, cognition and action: Proceedings of the Ninth Neural Computation and Psychology Workshop* (pp. 17-30). River Edge, NJ US: World Scientific Publishing Co.

Glenberg, A.M. (2006). Radical Changes In Cognitive Process Due To Technology: A Jaundiced View. *Pragmatics and Cognition*, *14*(2): 263-274.

Glenberg, A.M. (2008). Toward The Integration Of Bodily States, Language, and Action. In G. R. Semin, E. R. Smith (Eds.), *Embodied Grounding: Social, Cognitive, Affective, and Neuroscientific Approaches* (pp. 43-70). New York, NY US: Cambridge University Press.

Glenberg, A.M., Brown, M., and Levin, J.R. (2007). <u>Enhancing Comprehension in Small Reading Groups</u> Using a Manipulation Strategy. *Contemporary Educational Psychology*, 32: 389–399.

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Marley, S.C., and Levin, J.R. (2006). Pictorial Illustrations, Visual Imagery, and Motor Activity: Their Instructional Implications for Native American Children with Learning Disabilities. In R.J. Morris (Ed.), *Disability Research and Policy: Current Perspectives* (pp. 103–123). Mahwah, NJ: Erlbaum.

Marley, S.C., Levin, J.R., and Glenberg, A.M. (2007). <u>Improving Native American Children's Listening Comprehension through Concrete Representations</u>. *Contemporary Educational Psychology, 32*: 537–550.

### R305H030282

<u>Understanding Students' Mathematical Competencies: An Exploration of the Impact of Contextualizing Mathematical Problems</u>

Yale University Sternberg, Robert

Grant Transferred to: Tufts University

### **Publications:**

McNeil, N., Uttal, D.H., Jarvin, L., and Sternberg, R.J. (2009). <u>Should You Show Me the Money? Concrete Objects Both Hurt and Help Performance on Mathematics Problems</u>. *Learning and Instruction, 19*: 171–184.

Sternberg, R. (2008). <u>Applying Psychological Theories to Educational Practice</u>. *American Educational Research Journal*, 45: 150–165.

### R305H030283

<u>Computer-Assisted Instruction For Learning and Long-Term Retention Based On Recent Cognitive and Metacognitive Findings</u>

University of Maryland, College Park Wallsten, Thomas

### **Publications:**

Jang, Y., and Nelson, T.O. (2005). <u>How Many Dimensions Underlie Judgments of Learning and Recall?</u> <u>Evidence from State-Trace Methodology</u>. *Journal of Experimental Psychology: General*, *134*: 308–326.

Nelson, T.O., Narens, L., and Dunlosky, J. (2004). <u>A Revised Methodology for Research on Metamemory:</u> Pre-judgment Recall and Monitoring (PRAM). *Psychological Methods*, 9 (1): 53–69.

Richards, R.M., and Nelson, T.O. (2004). Effect of the Difficulty of Prior Items on the Magnitude of Judgments of Learning for Subsequent Items. *American Journal of Psychology*, 117 (1): 81–91.

Scheck, P., and Nelson, T.O. (2005). <u>Lack of Pervasiveness of the Underconfidence-With-Practice Effect:</u> <u>Boundary Conditions and an Explanation via Anchoring</u>. *Journal of Experimental Psychology: General,* 134(1): 124–128.

Scheck, P., Meeter, M., and Nelson, T.O. (2004). <u>Anchoring Effects in the Absolute Accuracy of Immediate versus Delayed Judgments of Learning</u>. *Journal of Memory and Language*, 51: 71–79.

Van Overschelde, J.P., and Nelson, T.O. (2006). Delayed Judgments of Learning Cause Both a Decrease in Absolute Accuracy (Calibration) and an Increase in Relative Accuracy (Resolution). *Memory and Cognition*, *34*: 1527–1538.

### R305H030339

### **Test-Enhanced Learning**

Washington University, St. Louis Roediger III, Henry

Project Website: <a href="http://www.psych.wustl.edu/memory/">http://www.psych.wustl.edu/memory/</a>

Related IES Projects: <u>Test-Enhanced Learning in the Classroom</u> (R305H060080) and Developing a Manual for Test-Enhanced Learning in the Classroom (R305A110550)

#### **Publications:**

Agarwal, P.K., Karpicke, J.D., Kang, S.H.K., Roediger, H.L., and McDermott, K.B. (2008). Examining the Testing Effect with Open- and Closed-Book Tests. *Applied Cognitive Psychology*, 22 (7): 861–876.

Butler, A.C., and Roediger, H.L. (2007). Testing Improves Long-Term Retention in a Simulated Classroom Setting. *European Journal of Cognitive Psychology*, 19 (4/5): 514 – 527.

Butler, A.C., and Roediger, H.L. (2008). Feedback Enhances the Positive Effects and Reduces the Negative Effects of Multiple-Choice Testing. *Memory and Cognition*, *36*: 604–616.

Butler, A.C., Karpicke, J.D., and Roediger, H.L., III. (2007). <u>The Effect of Type and Timing of Feedback</u> on Learning from Multiple-Choice Tests. *Journal of Experimental Psychology: Applied, 13*: 273–281.

Butler, A.C., Karpicke, J.D., and Roediger, H.L., III. (2008). <u>Correcting a Metacognitive Error: Feedback Increases Retention of Low-Confidence Correct Responses.</u> *Journal of Experimental Psychology: Learning, Memory, and Cognition, 34*(4): 918–928.

Chan, C.K., McDermott, K.B., and Roediger, H.L. (2006). <u>Retrieval Induced Facilitation: Initially Nontested Material Can Benefit From Prior Testing</u>. *Journal of Experimental Psychology: General, 135*: 533–571.

Kang, S.H.K., McDermott, K.B., and Roediger, H.L. (2007). Test Format and Corrective Feedback Modify the Effect of Testing on Long-Term Retention. *European Journal of Cognitive Psychology*, 19 (4/5): 528–558.

Karpicke, J.D., and Roediger, H.L. (2008). The Critical Importance Of Retrieval For Learning. *Science*, 319: 966–968.

Karpicke, J.D., and Roediger, H.L. (2007). <u>Expanding Retrieval Practice Promotes Short-Term Retention</u>. <u>But Equally Spaced Retrieval Enhances Long-Term Retention</u>. *Journal of Experimental Psychology: Learning, Memory and Cognition, 33*: 704–719.

Karpicke, J.D., and Roediger, H.L. (2007). <u>Repeated Retrieval During Learning Is the Key to Long-Term Retention</u>. *Journal of Memory and Language*, *57*: 151–162.

Larsen, D.P., Butler, A.C., and Roediger, H.L. (2008). Test-enhanced Learning in Medical Education. *Medical Education*, 42: 959–966.

McDaniel, M.A., Anderson, J.L., Derbish, M.H., and Morrisette, N. (2007). Testing the Testing Effect in the Classroom. *European Journal of Cognitive Psychology*, 19 (4/5): 494–513.

McDaniel, M.A., Roediger, H.L., and McDermott, K.B. (2007). Generalizing Test-Enhanced Learning from the Laboratory to the Classroom. *Psychonomic Bulletin and Review, 14*: 200–206.

Roediger, H.L., and Karpicke, J.D. (2006). Test-Enhanced Learning: Taking Memory Tests Improves Long-Term Retention. *Psychological Science*, 17: 249–255.

Roediger, H.L., and Karpicke, J.D. (2006). The Power of Testing Memory: Basic Research and Implications for Educational Practice. *Perspectives on Psychological Science, 1*: 181–210.

Roediger, H.L., McDaniel, M.A., and McDermott, K.B. (2006). Test Enhanced Learning. *The Observer*, 19: 28.

Szpunar, K.K., McDermott, K.B. and Roediger, H.L. (2007). Expectation of a Final Cumulative Test Enhances Long-Term Retention. *Memory and Cognition*, *35*: 1007–1013.

Szpunar, K.K., McDermott, K.B., and Roediger, H.L., III (2008). <u>"Testing during Study Insulates against the Buildup of Proactive Interference"</u>: <u>Correction</u>. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 34*: 1392–1399.

### 2004

### R305H040013

<u>Child Instruction Interactions in Early Reading: Examining Causal Effects of</u> Individualized Instruction

Florida State University Connor, Carol Frederick Morrison (University of Michigan)

Project Website: http://isi.fcrr.net

Related IES Projects: <u>Child-Instruction Interactions in Reading: Examining Causal Effects of Individualized Instruction in Second and Third Grade</u> (R305B070074) and <u>Making Individualized Literacy Instruction Available to All Teachers: Adapting the Assessment to Instruction (A2i) Software for Multiple Real-World Contexts (R305A130517)</u>

#### **Publications:**

Cameron, C.E., Connor, C.M., Morrison, F.J., and Jewkes, A.M. (2008). <u>Effects of Classroom Organization on Letter-Word Reading in First Grade</u>. *Journal of School Psychology*, 46: 173–192.

Connor, C.M., Piasta, S.B., Glasney, S., Schatschneider, C., Fishman, B., Underwood, P. (2009). <u>Individualizing Student Instruction Precisely: Effects of Child x Instruction Interactions on First Graders' Literacy Development</u>. *Child Development*, 80: 77–100.

Connor, C.M., Morrison, F.J., Fishman, B.J., Schatschneider, C., and Underwood, P. (2007). The EARLY YEARS: Algorithm-Guided Individualized Reading Instruction. *Science*, *315* (5811): 464–465.

Connor, C.M., Morrison, F.J., and Underwood, P. (2007). <u>A Second Chance in Second Grade: The Independent and Cumulative Impact of First- and Second-Grade Reading Instruction on Students' Letter-Word Reading Skill Growth.</u> *Scientific Studies of Reading*, *11*(3): 199–233.

Morrison, F.J., and Connor, C.M. (2009). The Transition to School: Child-Instruction Transactions in Learning to Read. In A. Sameroff (Ed.), *The Transactional Model of Development: How Children and Contexts Shape Each Other* (pp. 183–201). Washington, DC: American Psychological Association.

Al Otaiba, S., Connor, C., Lane, H., Kosanovich, M.L., Schatschneider, C., Dyrlund, A.K., and Wright, T.L. (2008). Reading First Kindergarten Classroom Instruction and Students' Growth In Phonological Awareness and Letter Naming--Decoding Fluency. *Journal Of School Psychology*, 46(3): 281-314.

Piasta, S.B., Connor, C.M., Fishman, B.J., and Morrison, F.J. (2009). <u>Teachers' Knowledge of Literacy Concepts, Classroom Practices, and Student Reading Growth</u>. *Scientific Studies of Reading*, *13*(3): 224–248.

Terry, N., Connor, C., Thomas-Tate, S., and Love, M. (2010). <u>Examining Relationships among Dialect Variation, Literacy Skills, and School Context in First Grade</u>. *Journal of Speech, Language and Hearing Research*, *53*(1), 126–145.

### R305H040032

Advancing the Math Skills of Low-Achieving Adolescents in Technology-Rich Learning Environments

University of Wisconsin, Madison Bottge, Brian

Related IES Projects: <u>Evaluating the Efficacy of Enhanced Anchored Instruction for Middle</u> School Students with Learning Disabilities in Math (R324A090179)

### **Publications:**

Bottge, B.A., Rueda, E., Grant, T.S., Stephens, A.C., and LaRoque, P.T. (2010). <u>Anchoring Problem-Solving and Computation Instruction in Context-Rich Learning Environments</u>. *Exceptional Children*, 76(4): 417–437.

Bottge, B.A., Rueda, E., Kwon, J.M., Grant, T., and LaRoque, P. (2009). <u>Assessing and Tracking Students' Problem Solving Performances in Anchored Learning Environments</u>. *Educational Technology Research and Development*, *57*(4): 529–552.

Bottge, B.A., Grant, T.S., Rueda, E., and Stephens, A.C. (2010). Advancing the Math Skills of Middle School Students in Technology Education Classrooms. *NASSP Bulletin*, *94*, 81-106.

Cho, S.J., Cohen, A.S., Kim, S.H., and Bottge, B. (2010). Latent Transition Analysis with a Mixture Item Response Theory Measurement Model. *Applied Psychological Measurement*, *34*, 483-504.

Cho, S.J., Bottge, B.A., Cohen, A.S., and Kim, S.H. (2011). <u>Detecting Cognitive Change in the Math Skills of Low-Achieving Adolescents</u>. *Journal of Special Education*, 45(2): 67-76.

Stephens, A.C., Bottge, B.A., and Rueda, E. (2009). <u>Ramping Up On Fractions</u>. *Mathematics Teaching In The Middle School*, *14*(6): 520–526.

### R305H040099

Bridging the Gap: Applying Algebra Cognition Research to Develop and Validate Diagnostic Classroom Algebra Testlet

Boston College Russell, Michael Joan Lucariello (CUNY Central)

### Project Website:

http://www.bc.edu/research/intasc/studies/DiagnosticAlgebra/description.shtml

Related IES Projects: The Diagnostic Geometry Assessment Project (R305A080231)

#### Publications:

Russell, M., O'Dwyer, L.M., and Miranda, H. (2009). Diagnosing Students' Misconceptions in Algebra: Results from an Experimental Pilot Study. *Behavior Research Methods*, *41* (2): 414–424.

### R305H040108

### **Optimizing Resistance to Forgetting**

University of California, San Diego Pashler, Harold E.

Project Website: http://www.pashler.com/

Related IES Projects: Optimizing Resistance to Forgetting (R305H020061) and Harnessing Retrieval Practice to Enhance Learning in Diverse Domains (R305B070537)

### **Publications:**

Carpenter, S., and Pashler, H. (2007). <u>Testing Beyond Words: Using Tests to Enhance Visuospatial Map Learning</u>. *Psychonomic Bulletin and Review*, *14*: 474–478.

Carpenter, S., Pashler, H., and Cepeda, N.J. (2009). Using Tests to Enhance 8th Grade Students' Retention of U.S. History Facts. *Applied Cognitive Psychology*, 23: 760–771.

Carpenter, S., Pashler, H., and Vul, E. (2007). What Types of Learning Are Enhanced by a Cued Recall Test? *Psychonomic Bulletin and Review*, *13*: 826–830.

Carpenter, S.K., Pashler, H., Cepeda, N.J., and Alvarez, D. (2007). Applying the Principles of Testing and Spacing to Classroom Learning. In D.S. McNamara and J. G. Trafton (Eds.), *Proceedings of the 29th Annual Cognitive Science Society* (p. 19). Nashville, TN: Cognitive Science Society.

Carpenter, S., Pashler, H., Wixted, J., and Vul, E. (2008). The Effects of Tests on Learning and Forgetting. *Memory and Cognition*, *36*: 438–448.

Cepeda, N., Coburn, N., Rohrer, D., Wixted, J., Mozer, M., and Pashler, H. (2009). Optimizing Distributed Practice: Theoretical Analysis and Practical Implications. Experimental Psychology, 56 (4): 236–246.

Cepeda, N., Vul, E., Rohrer, D., Wixted, J., and Pashler, H. (2008). Spacing Effects in Learning: A Temporal Ridgeline of Optimal Retention. *Psychological Science*, 19: 1095–1102.

Cepeda, N.J., Pashler, H., Vul, E., Wixted, J.T., and Rohrer, D. (2006). <u>Distributed Practice in Verbal Recall Tasks: A Review and Quantitative Synthesis</u>. *Psychological Bulletin*, *132* (2): 354–380.

Jones, J. and Pashler, H. (2007). Is the Mind Inherently Forward Looking? Comparing Predication and Retrodiction. *Psychonomic Bulletin and Review*, 14: 295–300.

Kang, S.K., McDaniel, M.A., and Pashler, H. (2011). Effects Of Testing On Learning Of Functions. *Psychonomic Bulletin and Review*, *18*(5): 998-1005.

Kang, S.K., Pashler, H., Cepeda, N.J., Rohrer, D., Carpenter, S.K., and Mozer, M.C. (2011). Does Incorrect Guessing Impair Fact Learning?. *Journal Of Educational Psychology*, *103*(1): 48-59.

Mozer, M., C., Pashler, H., and Homaei, H. (2003). Optimal Predictions in Everyday Cognition: The Wisdom of Individuals or Crowds? Cognitive Science: A Multidisciplinary Journal, 32: 1133–1147.

Pashler, H., Rohrer, D., and Cepeda, N.J. (2006). Temporal Spacing and Learning. APS Observer, 19: 30–38.

Pashler, H., Rohrer, D., Cepeda, N., and Carpenter, S. (2007). <u>Enhancing Learning and Retarding</u> Forgetting: Choices and Consequences. *Psychonomic Bulletin and Review, 14*: 187–193.

Rickard, T., Lau, J., and Pashler, H. (2008). <u>Spacing and the Transition from Calculation to Retrieval</u>. *Psychonomic Bulletin and Review*, 15: 656–661.

Rohrer, D. (2009). <u>The Effects of Spacing and Mixing Practice Problems</u>. *Journal for Research in Mathematics Education*, 40: 4–17.

Rohrer, D. (2009). Avoidance of Overlearning Characterizes the Spacing Effect. *European Journal of Cognitive Psychology*, 12(7): 1001–1012.

Rohrer, D., and Pashler, H. (2007). <u>Increasing Retention Without Increasing Study Time</u>. *Current Directions in Psychology Science*, *16*: 183–186.

Rohrer, D., and Taylor, K. (2006). <u>The Effects of Overlearning and Distributed Practice on the Retention of Mathematics Knowledge</u>. *Applied Cognitive Psychology*, *20*(9): 1209–1224.

Rohrer, D., and Taylor, K. (2007). The Shuffling of Mathematics Problems Improves Learning. *Instructional Science*, 35(6): 481–498.

Rohrer, D., Taylor, K., Pashler, H., Wixted, J.T., and Cepeda, N.J. (2005). <u>The Effect of Overlearning on Long-Term Retention</u>. *Applied Cognitive Psychology*, *19*: 361–374.

Taylor, K., and Rohrer, D. (2010). The Effects Of Interleaved Practice. *Applied Cognitive Psychology*, 24(6): 837-848.

Vul, E., and Pashler, H. (2008). Measuring the Crowd Within: Probabilistic Representations Within Individuals. *Psychological Sciences*, 19(7): 645–647.

Vul, E., Harris, C., Winkielman, P., and Pashler, H. (2009). <u>Puzzlingly High Correlations in fMRI Studies of Emotion</u>, <u>Personality</u>, and <u>Social Cognition</u>. *Perspectives on Psychological Science*, *4*(3): 274–290.

### 2005

### R305H050004

<u>Improving the Assessment Capability of Standardized Tests: How High-Stakes Testing Environments Compromise Performance</u>

University of Chicago Beilock, Sian

### **Publications:**

Beilock, S.L. (2008). Math Performance in Stressful Situations. *Current Directions in Psychological Science*, 17(5): 339–343.

Beilock, S.L. (2007). Choking Under Pressure. In R. Baumeister and K. Vohs (Eds.), *Encyclopedia of Social Psychology*. Los Angeles, CA: Sage Publications.

Beilock, S.L., and Decaro, M.S. (2007). <u>From Poor Performance to Success Under Stress: Working Memory, Strategy Selection, and Mathematical Problem Solving Under Pressure</u>. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 33*: 983–998.

Beilock, S.L., and Gonso, S. (2008). Putting In The Mind Versus Putting On The Green: Expertise, Performance Time, and The Linking Of Imagery and Action. *The Quarterly Journal Of Experimental Psychology*, 61(6): 920-932.

Beilock, S.L., and Lyons, I.M. (2009). Expertise and The Mental Simulation Of Action. In K.D. Markman, W.P. Klein, J.A. Suhr (Eds.), *Handbook Of Imagination and Mental Simulation* (pp. 21-34). New York, NY US: Psychology Press.

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Beilock, S.L., Jellison, W.A., Rydell, R.J., Mcconnell, A.R., and Carr, T.H. (2006). On the Causal Mechanisms of Stereotype Threat: Can Skills that Don't Rely Heavily on Working Memory Still Be Threatened? *Personality and Social Psychology Bulletin*, *32*(8): 1059–1071.

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### R305H050035

### **Improving Children's Pure Numerical Estimation**

Carnegie Mellon University Siegler, Robert

Project Website: http://www.psy.cmu.edu/~siegler/publications-all.html

Related IES Projects: <u>Using Cognitive Analyses to Improve Children's Math and Science</u> Learning (R305H020060) and Improving Children's Numerical Understanding (R305A080013)

### **Publications:**

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Booth, J.L., and Siegler, R.S. (2008). <u>Numerical Magnitude Representations Influence Arithmetic Learning</u>. *Child Development*, 79: 1016–1031.

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### R305H050036

# A Randomized Trial of Two Promising Interventions for Students with Attention Problems Duke University

Rabiner, David

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Rabiner, D.L., Murray, D.W., Skinner, A.T., and Malone, P.S. (2010). <u>A Randomized Trial of Two Promising Computer-Based Interventions for Students with Attention Difficulties</u>. *Journal of Abnormal Child Psychology*, *38*(1), 131–142.

### R305H050038

### Supporting Efficient and Durable Student Learning

Kent State University Dunlosky, John

Related IES Projects: <u>Developing the Retrieval-Monitoring-Feedback (RMF) Method for Improving the Durability and Efficiency of Student Learning</u> (R305A080316)

### **Publications:**

Dunlosky, J., and Lipko, A.R. (2007). Metacomprehension: A Brief History and How to Improve Its Accuracy. *Current Directions in Psychological Science*, *16*(4): 228–232.

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### R305H050052

<u>Dynamically Modifying the Learning Trajectories of Novices with Pedagogical Agents</u>
University of Southern California
Beal, Carole

#### **Publications:**

Beal, C.R., Qu, L., and Lee, H. (2008). <u>Mathematics Motivation and Achievement as Predictors of High School Students' Guessing and Help-Seeking with Instructional Software</u>. *Journal of Computer Assisted Learning*, 24: 507–514.

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### R305H050059

### **Understanding and Facilitating Symbolic Learning**

Northwestern University Uttal, David Judy DeLoache (University of Virginia)

Related IES Projects: Learning From Symbolic Objects (R305H020088)

### **Publications:**

DeLoache, J.S., and Chiong, C. (2010). Babies and Baby Media. *American Behavioral Scientist*, 52(8): 1115–1135.

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McNeil, N.M., Uttal, D.H., Jarvin, L., and Sternberg, R J. (2009). Should You Show Me The Money? Concrete Objects Both Hurt and Help Performance On Mathematics Problems. *Learning and Instruction*, *19*(2): 171-184.

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### R305H050062

### **Guided Cognition for Unsupervised Learning**

Fordham University Whitten, William Mitchell Rabinowitz

Related IES Projects: <u>Guided Cognition for Unsupervised Learning of Mathematics</u> (R305A080134)

**Publications:** 

### R305H050116

Grounded and Transferable Knowledge of Complex Systems Using Computer Simulations
Indiana University
Goldstone, Robert
Linda Smith

### **Publications:**

Barab, S., Scott, B., Siyahhan, S. Goldstone, R.L., Ingram-Goble, A., Zuiker, S., and Warren, S. (2009). <u>Transformational Play as a Curricular Scaffold: Using Videogames to Support Science Education</u>. *Journal of Science Education and Technology*, *18*(4): 305–320.

Corneille, O., Goldstone, R.L., Queller, S., and Potter, T. (2006). Asymmetries in Categorization, Perceptual Discrimination, and Visual Search for Reference and Non-Reference Exemplars. *Memory and Cognition*, 34: 556–567.

Day, S.B., and Goldstone, R.L. (2009). Analogical Transfer from Interaction with a Simulated Physical System. *Proceedings of the Thirty-First Annual Conference of the Cognitive Science Society*, 1406–1411. Amsterdam, Netherlands: Cognitive Science Society.

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Goldstone, R.L., and Son, J.Y. (2005). <u>The Transfer of Scientific Principles Using Concrete and Idealized Simulations</u>. *Journal of the Learning Sciences*, *14*: 69–110.

Goldstone, R.L., and Wilensky, U. (2008). <u>Promoting Transfer by Grounding Complex Systems Principles</u>. *Journal of the Learning Sciences*, *17*: 465–516.

Goldstone, R.L., Ashpole, B.C., and Roberts, M.E., (2005). Knowledge of Resources and Competitors in Human Foraging. *Psychonomic Bulletin and Review, 12*: 81–87.

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Landy, D.H., and Goldstone, R.L. (2005a). How We Learn About Things We Don't Already Understand. *Journal of Experimental and Theoretical Artificial Intelligence, 17*: 343–369.

Landy, D.H., and Goldstone, R.L. (2005b). Relational Reasoning is in the Eyes of the Beholder: How Global Perceptual Groups Aid and Impair Algebraic Evaluations. In B. G. Bara, L. Barsalou, and M. Bucciarelli (Eds.), *Proceedings of the 27th Annual Conference of the Cognitive Science Society*. Hillsdale, NJ: Erlbaum.

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Landy, D. H., and Goldstone, R. L. (2010). Proximity and Precedence in Arithmetic. *The Quarterly Journal of Experimental Psychology*, 63(10):1953-68.

Landy, D.H., Jones, M.N., and Goldstone, R.L. (2008). How the Appearance of an Operator Affects its Formal Precedence. In B. C. Love, K. McRae, and V. M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (pp. 2109–2114). Washington, D.C.: Cognitive Science Society.

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Son, J.Y., Smith, L.B., and Goldstone, R.L. (2008). <u>Simplicity and Generalization: Short-Cutting Abstraction in Children's Object Categorizations</u>. *Cognition, 108*: 626–638.

### R305H050125

Scientific Misconceptions: From Cognitive Underpinning to Educational Treatment
Ohio State University
Heckler, Andrew

### **Publications:**

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### R305H050133

<u>Creating a Usable Environment to Teach Argument Comprehension and Production Skills</u>
Northern Illinois University
Britt, Anne

Related IES Projects: <u>Improving Students' Comprehension and Construction of Arguments</u> (R305H020039)

### **Publications:**

Britt, M.A., and Gabrys, G. (2004). Collecting Responses through Web Page Drag and Drop. *Behavior Research Methods, Instruments, and Computers*, 36(1): 52–68.

Britt, M.A., Kurby, C.A., Dandotkar, S., and Wolfe, C.R. (2008). <u>I Agreed with What? Memory for Simple Argument Claims</u>. *Discourse Processes*, 45(1): 52–84.

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Larson, A.A., Britt, M.A., and Kurby, C. (2009). <u>Improving Students' Evaluation of Informal Arguments</u>. *Journal of Experimental Education*, 77(4): 339–365.

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### R305H050169

An Implementation of Vicarious Learning with Deep-Level Reasoning Questions in Middle School and High School Classrooms

University of Memphis Gholson, Barry

Related IES Project: <u>Center for the Study of Adult Literacy (CSAL)</u>: <u>Developing Instructional Approaches Suited to the Cognitive and Motivational Needs for Struggling Adults</u> (R305C120001)

### **Publications:**

Craig, S.D., Chi, M.T.H. and VanLehn, K. (2009). <u>Improving Classroom Learning by Collaboratively Observing Human Tutoring Videos while Problem Solving</u>. *Journal of Educational Psychology, 101* (4): 779–789.

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### R305H050179

<u>Using Contrasting Examples to Support Procedural Flexibility and Conceptual</u> **Understanding in Mathematics** 

President and Fellows of Harvard College, Graduate School of Education Star, Jon

Bethany Rittle-Johnson (Vanderbilt University)

### **Publications:**

Durkin, K., and Rittle-Johnson, B. (2012). The Effectiveness of Using Incorrect Examples to Support Learning About Decimal Magnitude. *Learning and Instruction*, 22(3): 206-214.

Rittle-Johnson, B. and Star, J.R. (2011). The Power of Comparison in Learning and Instruction: Learning Outcomes Supported by Different Types of Comparisons. In Mestre, J.P. and Ross, B.H. (Eds.), *The Psychology of Learning and Motivation, Volume 55*. San Diego, CA: Elsevier Inc.

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### 2006

### R305H060018

Enhancing Self-Reflection and Mathematics Achievement of At-Risk Students at an Urban Technical College: A Self-Regulated Learning Intervention

City University of New York (CUNY) Graduate Center Zimmerman, Barry

### **Publications:**

Zimmerman, B.J., Moylan, A., Hudesman, J., White, N., and Flugman, B. (2011). Enhancing Self-Reflection and Mathematics Achievement Of At-Risk Urban Technical College Students. *Psychological Test and Assessment Modeling*, *53*(1): 141-160.

### R305H060034

<u>Training in Experimental Design: Developing Scalable and Adaptive Computer-based Science Instruction</u>

Carnegie Mellon University Klahr, David

Related IES Projects: <u>From Cognitive Models of Reasoning to Lesson Plans for Inquiry</u> (R305H030229) and <u>Promoting Transfer of the Control of Variables Strategy in Elementary and Middle School Children via Contextual Framing and Abstraction (R305A100404)</u>

### **Publications:**

Klahr, D. (2009) "To Every Thing there is a Season, and a Time to Every Purpose under the Heavens": What about Direct Instruction? In S. Tobias and T.M. Duffy (Eds.) *Constructivist Theory Applied to Instruction: Success or Failure?* London, UK: Taylor and Francis.

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Strand-Cary, M., and Klahr, D. (2008). <u>Developing Elementary Science Skills: Instructional Effectiveness and Path Independence</u>. *Cognitive Development, 23*: 488–511.

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### R305H060042

Attention, Memory, and Executive Functions in Written Language Expression in Elementary School Children

University of North Carolina, Chapel Hill Hooper, Stephen

### **Publications:**

Hooper, S.R., Roberts, J.E., Nelson, L., Zeisel, S., and Kasambira, D. (2010). <u>Preschool Predictors of Narrative Writing Skills in Elementary School Children</u>. *School Psychology Quarterly*, 25: 1–12.

Hooper, S.R., Roberts, J.E., Sideris, J., Burchinal, M., and Zeisel, S. (2010). <u>Longitudinal Predictors of Reading and Math Skills for African-American Youth across Two Studies: An Examination of Similar Predictors at Different Developmental Time Points. Developmental Psychology, 46 (5): 1018-1029.</u>

Zins, J.M., and Hooper, S.R. (2012). The Interrelationship Of Child Development and Written Language Development. In E. L. Grigorenko, E. Mambrino, D. D. Preiss (Eds.), *Writing: A Mosaic Of New Perspectives* (pp. 47-64). New York, NY US: Psychology Press.

### R305H060070

<u>Integrating Conceptual Foundations in Mathematics through the Application of Principles of Perceptual Learning</u>

University of California, Los Angeles Kellman, Philip

Related IES Projects: <u>Perceptual Learning Technology in Mathematics Education</u>: <u>Efficacy and Replication</u> (R305A120288) and <u>Perceptual and Adaptive Learning Technologies</u>: <u>Developing Products to Improve Algebra Learning</u>

#### **Publications:**

Kellman, P.J., and Garrigan, P.B. (2009). Perceptual Learning and Human Expertise. *Physics of Life Reviews*, 6(2): 53–84.

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Massey, C.M., Kellman, P.J., Roth, Z. and Burke, T. (2011). Perceptual Learning and Adaptive Learning Technology: Developing New Approaches to Mathematics Learning in the Classroom. In Stein, N.L. and S. Raudenbush (Eds.), *Developmental and Learning Sciences Go to School: Implications for Education*. New York, NY: Taylor and Francis.

Mettler, E., and Kellman, P.J. (2009). Unconscious and Abstract Perceptual Learning of Hidden Patterns. In *Proceedings of the 2009 Meeting of the Vision Sciences Society*.

Son, J., Massey, C., Roth, Z., Longmire, W., Burke, T., Zucker, J., and Kellman, P. (2008). Perceptual Learning in Mathematics Education [Abstract]. In B.C. Love, K. McRae, and V.M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (p. 2366). Austin, TX: Cognitive Science Society.

### R305H060073

Making Meaning: Morphological Processing and Its Contribution to Adolescent and Pre-Adolescent Literacy

University of Washington McCutchen, Deborah

### **Publications:**

McCutchen, D. (2012). Phonological, Orthographic, and Morphological Word-Level Skills Supporting Multiple Levels Of The Writing Process. In V. Berninger (Ed.), *Past, Present, and Future Contributions Of Cognitive Writing Research To Cognitive Psychology* (pp. 197-216). New York, NY US: Psychology Press.

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McCutchen, D., and Logan, B. (2011). <u>Inside Incidental Word Learning: Children's Strategic Use of Morphological Information to Infer Word Meanings</u>. *Reading Research Quarterly*, 46(4): 334-349.

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### R305H060080

**Test-Enhanced Learning in the Classroom** 

Washington University, St. Louis Roediger III, Henry

Related IES Projects: <u>Test-Enhanced Learning</u> (R305H030339) and <u>Developing a Manual for</u> Test-Enhanced Learning in the Classroom (R305A110550)

#### **Publications:**

Agarwal, P.K., Bain, P.M., and Chamberlain, R.W. (2012). The Value Of Applied Research: Retrieval Practice Improves Classroom Learning and Recommendations From A Teacher, A Principal, and A Scientist. *Educational Psychology Review*, 24(3): 437-448.

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Butler, A.C., Karpicke, J.D., and Roediger, H.L. (2007). <u>The Effect of Type and Timing of Feedback on Learning From Multiple-Choice Tests</u>. *Journal of Experimental Psychology: Applied, 13*: 273–281.

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McDaniel, M.A., Anderson, J.L., Derbish, M.H., and Morrisette, N. (2007). Testing the Testing Effect in the Classroom. *European Journal of Cognitive Psychology*, 19(4/5): 494–513.

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### R305H060089

A Learning by Teaching Approach to Help Students Develop Self-Regulatory Skills in Middle School Science Classrooms

Vanderbilt University Biswas, Gautam

Related IES Projects: <u>SimSelf: A Simulation Environment Designed to Model and Scaffold Learners' Self-Regulation Skills to Optimize Complex Science Learning</u> (R305A120186)

### **Publications:**

Biswas, G., Schwartz, D., and Catley, K.M. (2008, July). A Learning by Teaching Approach to Help Students Develop Self-Regulatory Learning Skills in Middle School Science Classrooms. In C.L. O'Donnell and R. Harwood (Co-Chairs), Enhancing Learning Using Adaptive Computerized Tutoring in K–12 Settings. In B.C. Love, K. McRae, and V.M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (pp. 695–696). Washington, DC.

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### R305H060097

## <u>Does Visual Scaffolding Facilitate Students' Mathematics Learning? Evidence From Early Algebra</u>

University of Wisconsin, Madison Alibali, Martha

Related IES Projects: <u>Connecting Mathematical Ideas through Animated Multimodal Instruction</u> (R305A130016)

### **Publications:**

Alibali, M.W., and Nathan, M.J. (2009). Teachers' Gestures as a Means of Scaffolding Students' Understanding: Evidence from an Early Algebra Lesson. In R. Goldman, R. Pea, B. Barron, and S. J. Derry (Eds.), *Video Research in the Learning Sciences* (pp 349–365). Mahwah, NJ: Erlbaum.

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### R305H060150

### **Teaching the Logic of the Scientific Method in the Fourth Grade**

University of Kentucky Lorch, Elizabeth

### **Publications:**

Lorch, R.F., Jr., Lorch, E.P., Calderhead, W.J., Dunlap, E.E., Hodell, E.C., and Freer, B.D. (2010). Learning the Control of Variables Strategy in Higher and Lower Achieving Classrooms: Contributions of Explicit Instruction and Experimentation. *Journal of Educational Psychology*, *102*(1): 90–101.

### R305H060161

## The Effect of Metacognition on Children's Control of Their Study and of Their Cognitive Processes

Columbia University Metcalfe, Janet Lisa Son (Barnard College)

Related IES Projects: <u>Study Enhancement Based on Principles of Cognitive Science</u> (R305H030175)

### **Publications:**

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### 2007 R305B070018

<u>Training Attention in Preschool: Effects on Neurocognitive Functions and School Performance</u>

University of Oregon Neville, Helen

Related IES Projects: <u>Longitudinal Follow-up of Successful Parent/Child Intervention in Preschool Children At Risk for School Failure</u> (R305A110397) and <u>Training Attention in At-risk Preschoolers: Expansion of our Successful Program to a Wider Population within Head Start</u> (R305A110398)

### **Publications:**

Neville, H.J., Stevens, C., Pakulak, E., Bell, T.A., Fanning, J., Klein, S., and Isbell, E. (2013). Family-Based Training Program Improves Brain Function, Cognition, and Behavior In Lower Socioeconomic Status Preschoolers. *PNAS Proceedings Of The National Academy Of Sciences Of The United States Of America*, 110(29): 12138-12143.

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### R305B070085

**Conceptual Analysis and Student Learning in Physics** 

University of Illinois Ross, Brian

### **Publications:**

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### R305B070297

Arithmetic Practice that Promotes Conceptual Understanding and Computational University of Notre Dame McNeil, Nicole

Related IES Projects: <u>Improving Children's Understanding of Mathematical Equivalence</u> (R305A110198)

### **Publications:**

Brown, M.C., McNeil, N.M., and Glenberg, A.M. (2009). Using Concreteness In Education: Real Problems, Potential Solutions. *Child Development Perspectives*, *3*: 160-164.

Keultjes, M.C., Gibson, M.H., and McNeil, N.M. (2009). Children's Understanding Of Approximate Arithmetic Depends On Problem Format. In N.A. Taatgen and H. Van Rijn (Eds.), *Proceedings Of The 31st Annual Conference Of The Cognitive Science Society* (pp. 329–334). Austin, TX: Cognitive Science Society.

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Petersen, L.A., Heil, J.K., McNeil, N.M., and Haeffel, G.J. (2010). Learning From Errors In Game-Based Versus Formal Mathematics Contexts. In S. Ohlsson and R. Catrambone (Eds.), *Proceedings Of The 32nd Annual Conference Of The Cognitive Science Society*. Austin, TX: Cognitive Science Society.

### R305B07034

Acquiring Research Investigative and Evaluative Skills (ARIES) for Scientific Inquiry
Northern Illinois University
Millis, Keith

Related IES Project: <u>Center for the Study of Adult Literacy (CSAL)</u>: <u>Developing Instructional Approaches Suited to the Cognitive and Motivational Needs for Struggling Adults</u> (R305C120001)

### **Publications:**

Butler, H.A., Forsyth, C., Halpern, D.F., Graesser, A.C., and Millis, K (2010). Secret Agents, Alien Spies, and A Quest To Save The World: Operation ARIES! Engages Students In Scientific Reasoning and Critical Thinking. In R. L. Miller, R. F. Rycek, E. Amsel, B. Kowalski, B. Beins, K. Keith, and B. Peden (Eds.)., *Promoting Student Engagement. Volume 1: Programs, Techniques and Opportunities*. Syracuse, NY: Society For The Teaching Of Psychology.

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Forsyth, C., Butler, H.A., Graesser, A.C., Halpern, D.F., Millis, K., Cai, Z., Wood, J. (2010). Higher Contributions Correlate With Higher Learning Aims. In R. S. J.D. Baker, A. Merceron, P. I. Pavlik (Eds.).

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## R305B070407

## The Role of External Representations in Learning and Transfer of Mathematical Knowledge

Ohio State University Sloutsky, Vladimir

#### Publications:

Best, C.A., Robinson, C.W., and Sloutsky, V.M. (2010). The Effect Of Labels On Visual Attention: An Eye Tracking Study. In S. Ohlsson and R. Catrambone (Eds.), *Proceedings Of The XXXII Annual Conference Of The Cognitive Science Society* (pp. 1846-1851). Mahwah, NJ: Erlbaum.

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Robinson, C.W., and Sloutsky, V.M. (2013). When Audition Dominates Vision: Evidence From Cross-Modal Statistical Learning. *Experimental Psychology*, 60(2): 113-121.

Sloutsky, V.M. (2010). Mechanisms Of Cognitive Development: Domain-General Learning Or Domain-Specific Constraints. *Cognitive Science*, *34*: 1125-1130.

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Sloutsky, V.M. (2010). From Perceptual Categories To Concepts: What Develops? *Cognitive Science*, 34 (7): 1244–1286.

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Yao, X., and Sloutsky, V.M. (2010). Selective Attention and Development Of Categorization: An Eye Tracking Study. In S. Ohlsson and R. Catrambone (Eds.), *Proceedings Of The XXXII Annual Conference Of The Cognitive Science Society* (pp. 1980-1985). Mahwah, NJ: Erlbaum

## R305B070434

## **Improving Science Learning Through Tutorial Dialogs**

Boulder Technologies Ward, Wayne Ron Cole

Related IES Projects: <u>My Science Tutor: Improving Science Learning through Tutorial Dialogs</u> (MyST) (R305A130206)

#### **Publications:**

Bolaños, D., Cole, R.A., Ward, W.H., Tindal, G.A., Schwanenflugel, P.J., and Kuhn, M.R. (2013). Automatic Assessment Of Expressive Oral Reading. *Speech Communication*, *55*(2): 221-236.

Nielsen, R.D. (2008). Question Generation: Proposed Challenge Tasks and Their Evaluation. In V. Rus and A. Graesser (Eds.), *Proceedings of the Workshop on the Question Generation Shared Task and Evaluation Challenge*.

Nielsen, R.D., Becker, L., and Ward, W. (2008). TAC 2008 CLEAR RTE System Report: Facet-Based Entailment. In *Proceedings of the Text Analysis Conference*. Gaithersburg, MD: National Institute of Standards and Technology.

Nielsen, R.D., Boyer, K., Heilman, M., Lin, C., Pino, J., and Stent, A. (2009). Evaluating Question Generation: Methodologies and Performance Metrics. In V. Rus and A. Graesser (Eds.) *The Question Generation Shared Task and Evaluation Challenge*.

Nielsen, R.D., Buckingham, J., Knoll, G., Marsh, B., and Palen, L. (2008). A Taxonomy of Questions for Question Generation. In V. Rus and A. Graesser (Eds.), *Proceedings of the Workshop on the Question Generation Shared Task and Evaluation Challenge*.

Nielsen, R.D., Ward, W., and Martin, J.H. (2008). Automatic Generation of Fine-Grained Representations of Learner Response Semantics. In B.P. Woolf, E. Aimeur, R. Nkambou, and S. P. Lajoie (Eds.), *Proceedings of the Ninth International Conference on Intelligent Tutoring Systems* (pp. 173–183). Heidelberg, Germany: Springer.

Nielsen, R.D., Ward, W., and Martin, J.H. (2008). Classification Errors in a Domain-Independent Assessment System. In *Proceedings of the Third Workshop on Innovative Use of Natural Language Processing for Building Educational Applications, at the Forty-Sixth Annual Meeting of the Association for Computational Linguistics* (pp. 10–18). Stroudsburg, PA: Association for Computational Linguistics.

Nielsen, R.D., Ward, W., and Martin, J.H. (2008). Learning to Assess Low-Level Conceptual Understanding. in David Wilson and H. Chad Lane (Eds.), *Proceedings of the Twenty-First International* 

*Artificial Intelligence Researchers Society Conference* (FLAIRS–08) (pp. 427–432). Menlo Park, CA: Association for the Advancement of Artificial Intelligence.

Nielsen, R.D., Ward, W., and Martin, J.H. (2008). Soft Computing in Intelligent Tutoring Systems and Educational Assessment. In B. Prasad (Ed.), *Soft Computing Applications in Business* (pp. 201–230). Heidelberg, Germany: Springer-Verlag

Nielsen, R.D., Ward, W., and Martin, J.H. (2009). Recognizing Entailment in Intelligent Tutoring Systems. *Natural Language Engineering: Special Issue on Textual Entailment, 15*(4): 479–501.

Nielsen, R.D., Ward, W., and Martin, J.H. (2009). Recognizing Entailment In Intelligent Tutoring Systems. *Natural Language Engineering*, *15*(4): 479-501.

Nielsen, R.D., Ward, W., Martin, J.H., and Palmer, M. (2008). Annotating Students' Understanding of Science Concepts. In *Proceedings of the Sixth International Language Resources and Evaluation Conference* (pp. 341–348). Paris, France: European Language Resources Association.

Nielsen, R.D., Ward, W., Martin, J.H., and Palmer, M. (2008). Extracting a Representation From Text for Semantic Analysis. In *Proceedings of the Forty-Sixth Annual Meeting of the Association for Computational Linguistics and the Human Language Technologies Conference* (pp. 241–244). Stroudsburg, PA: Association for Computational Linguistics.

## R305B070458

**Explicit Comprehension Instruction in an Automated Reading Tutor that Listens** 

Mostow, David Jack

Carnegie Mellon University

Related IES Projects: <u>Developing Vocabulary in an Automated Reading Tutor</u> (R305A080157) and <u>Accelerating Fluency Development in an Automated Reading Tutor</u> (R305A080628)

### **Publications:**

Mostow, J., Beck, J.E., Cuneo, A., Gouvea, E., Heiner, C., and Juarez, O. (2010). Lessons from Project LISTEN's Session Browser. In C. Romero, S. Ventura, S. R. Viola, M. Pechenizkiy and R. S. J. d. Baker (Eds.), *Handbook of Educational Data Mining* (pp. 389-416). New York: CRC Press, Taylor and Francis Group.

## R305B070460

Improving Metacomprehension and Self-Regulated Learning From Scientific Texts

**Boise State University** 

Thiede, Keith

Jennifer Wiley, Jonathan Brendefur, Thomas Griffin

Related IES Projects: <u>Improving Monitoring Accuracy Improves Learning From Text</u> (R305H030170)

## Publications:

Anderson, M.C.M., and Thiede, K.W. (2008). Why do Delayed Summaries Improve Metacomprehension Accuracy? *Acta Psychologica*, *128*: 110–118.

Ash, I.K., and Wiley, J. (2008). Hindsight Bias in Insight and Mathematical Problem Solving: Evidence of Different Retrospective Reconstruction Mechanisms for Metacognitive vs. Situational Judgments. *Memory and Cognition*, 36:822–837.

de Bruin, A.B.H., Thiede, K.W., Camp, G., and Redford, J. (2011). <u>Generating Keywords Improves Metacomprehension and Self-Regulation in Elementary and Middle School Children</u>. *Journal of Experimental Child Psychology*, *109*(3): 294-310.

Goldman, S.R., and Wiley, J. (2011). Discourse Analysis: Written Text. In N. Duke and M. Malette (Eds.), *Literacy Research Methods*, Second Edition, pp. 104-134. New York: Guilford.

Griffin, T. D., Jee, B. D. and Wiley, J. (2009). The Effects of Domain Knowledge on Metacomprehension accuracy. *Memory and Cognition*, *37*: 1001–13.

Griffin, T.D., Wiley, J., and Salas, C. (in press). Supporting Effective Self-Regulated Learning: The Critical Role of Monitoring. To appear in R. Azevedo and V. Aleven (Eds.), *International Handbook of Metacognition and Learning Technologies*. Springer Science.

Griffin, T.D., Wiley, J., and Thiede, K.W. (2008). Individual Differences, Rereading, and Self-Explanation: Concurrent Processing and Cue Validity as Constraints on Metacomprehension Accuracy. *Memory and Cognition*, *36*: 93–103.

Redford, J.S., Thiede, K.W., Wiley, J., and Griffin, T.D. (2012). <u>Concept Mapping Improves</u> Metacomprehension Accuracy Among 7<sup>th</sup> Graders. *Learning and Instruction*, 22: 262-270.

Sanchez, C.A., and Wiley, J. (2010). <u>Sex Differences in Science Learning: Closing the Gap through Animations</u>. *Learning and Individual Differences*, 20: 271–275.

Sanchez, C.A. and Wiley, J. (2009). To Scroll or Not to Scroll: Interactions of Text Presentation and Working Memory Capacity. *Human Factors*, *51*: 730–738.

Thiede, K.W., Griffin, T.D., and Wiley, J. (2011). <u>Test Expectancy Affects Metacomprehension Accuracy</u>. *British Journal of Educational Psychology*, 81: 264-273.

Thiede, K.W., Griffin, T.D., Wiley, J., and Anderson, M. (2010). <u>Poor Metacomprehension Accuracy as a Result of Inappropriate Cue Use</u>. *Discourse Processes*, *47*(4): 331–362.

Thiede, K.W., Griffin, T.D., Wiley, J., and Redford, J.S. (2009). Metacognitive Monitoring During and After Reading. In D.J. Hacker, J. Dunlosky, and A.C. Graesser, (Eds.), *Handbook of Metacognition and Self-Regulated Learning*. Mahwah, NJ: Erlbaum.

Thiede, K.W., Redford, J.S., Wiley, J., and Griffin, T.D. (2012). Elementary School Experience With Comprehension Testing May Influence Metacomprehension Accuracy Among 7<sup>th</sup> and 8<sup>th</sup> Graders. *Journal of Educational Psychology, 104*: 554-564.

Trabasso, T., and Wiley, J. (2009). What Happens at Reunions? Exploring Causal Connections and Their Role in Reunion Effects. *Discourse Processes*, 46: 269-308.

Wiley, J., Goldman, S.R., Graesser, A.C., Sanchez, C.A., Ash, I.K., and Hemmerich, J.A. (2009). <u>Source Evaluation, Comprehension, and Learning in Internet Science Inquiry Tasks</u>. *American Educational Research Journal*, 46(4): 1060–1106.

Wiley, J., Griffin, T.D., and Thiede, K.W. (2008). To Understand Your Understanding, One Must Understand What Understanding Means. In B.C. Love, K. Mcrae, and V.M. Sloutsky (Eds.), *Proceedings* 

of the 30th Annual Conference of the Cognitive Science Society (pp. 817–822). Washington, DC: Cognitive Science Society.

Wiley, J. and Jee, B.D. (2010). Cognition: Overview and Recent Themes. *International Encyclopedia of Education* (3rd Edition) (Vol. 5, pp. 245–250). Elsevier: Oxford, UK.

Wiley, J. and Sanchez, C.A. (2010). Constraints on Learning From Expository Science Texts. In N.L. Stein and S. Raudenbush (Eds.), *Developmental Cognitive Science Goes to School*, pp. 45-58. Routledge Education: New York, NY.

## R305B070487

Bridging the Bridge to Algebra: Measuring and Optimizing the Influence of Prerequisite Skills on a Pre-Algebra Curriculum

Carnegie Mellon University Pavlik, Philip

#### **Publications:**

Pavlik Jr., P.I., Anderson, J.R. (2008). <u>Using a Model to Compute the Optimal Schedule of Practice</u>, *Journal of Experimental Psychology: Applied*, *14*: 101–117.

Frishkoff, G., Levin, L., Pavlik, P., Idemaru, K., and de Jong, N. (2008). A Model-based Approach to Second-Language Learning of Grammatical Constructions. In V. Sloutsky, B. Love and K. McRae (Eds.), *Proceedings of the 30th Conference of the Cognitive Science Society* (pp. 916–921). Washington, D.C.

Pavlik, P.I., Cen, H., Wu, L., and Keodinger, K.R. (2008). <u>Using Item-Type Performance Covariance to Improve the Skill Model of an Existing Tutor</u>. In R.S. Baker and J.E. Beck (Eds.), *Proceedings of the 1st International Conference on Educational Data Mining* (pp. 77–86). Montreal, Canada: UQAM.

Pavlik Jr., P.I., Bolster, T., Wu, S., Koedinger, K.R., and MacWhinney, B. (2008). Using Optimally Selected Drill Practice to Train Basic Facts. In B. Woolf, E. Aimer and R. Nkambou (Eds.), *Proceedings of the 9th International Conference on Intelligent Tutoring Systems*. (vol 5091, pp 593–602). Berlin, Germany: Springer.

## R305B070537

## Harnessing Retrieval Practice to Enhance Learning in Diverse Domains

University of California, San Diego Pashler, Harold E.

Related IES Projects: Optimizing Resistance to Forgetting (R305H040108) and Optimizing Resistance to Forgetting (R305H020061)

## **Publications:**

Carpenter, S.K., Cepeda, M.J., Rohrer D., Kang S.H., and Pashler, H. (2012). <u>Using Spacing to Enhance Diverse Forms of Learning: Review of Recent Research and Implications for Instruction</u>. *Educational Psychology Review, 24*: 369-378.

Gaspelin, N., Ruthruff, E., and Pashler, H. (2013). Divided Attention: An Undesirable Difficulty in Memory Retention. Memory and Cognition, DOI 10.3758/s13421-013-0326-5.

Kang, S.H.K, and Pashler, H. (2012). Learning Painting Styles: Spacing is Advantageous When it Promotes Discriminative Contrast. *Applied Cognitive Psychology*, 26, 97-103.

Kang, S.H.K, Gollan, T.H., and Pashler, H. (2013). Don't Just Repeat After Me: Retrieval Practice is Better than Imitation for Foreign Vocabulary Learning. *Psychonomic Bulletin and Review*. Published online May 17, 2013. DOI 10.3758/s13423-013-0450-z

Pashler, H. and Mozer, M.C. (2013). When Does Fading Enhance Perceptual Category Learning? *Journal of Experimental Psychology: Learning, Memory, and Cognition*. Feb 18, 2013, No Pagination Specified. doi: 10.1037/a0031679.

Pashler, H., Kang, S.H.K., and Ip, R. (2013). Does Multitasking Impair Studying? Depends on Timing. *Applied Cognitive Psychology*. doi: 10.1002/acp.2919.

Pashler, H., Kang, S.H.K., and Mozer, M.C. (2013). Reviewing Erroneous Information Facilitates Memory Updating. *Cognition*, 128: 424-430.

Rohrer, D. (2009). Avoidance of Overlearning Characterizes the Spacing Effect. *European Journal of Cognitive Psychology*, 21(7): 1001–1012.

Rohrer, D. and Pashler, H. (2010). <u>Recent Research on Human Learning Challenges Conventional Instructional Strategies</u>. *Educational Researcher*, *39*(5): 406–412.

Rohrer, D., Taylor, K., and Sholar, B. (2010). <u>Tests Enhance the Transfer of Learning</u>. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *36*(1): 233–239.

Taylor, K., and Rohrer, D. (2010). The Effects of Interleaved Practice. *Applied Cognitive Psychology*, 24(6): 837–848.

## R305B070542

An Economical Improvement In Literacy and Numeracy

George Mason University

Pasnak, Robert

Related IES Projects: <u>Increasing Learning By Promoting Early Abstract Thought</u> (R305H030031) and <u>Focusing on the Efficacy of Teaching Advanced Forms of Patterning on</u> First Graders' Improvements in Reading, Mathematics, and Reasoning Ability (R305A090353)

## **Publications:**

Boyer, C.E., Carlson, A.G., and Pasnak, R. (2012). Object and Size Awareness In Preschool-Age Children. *Perceptual and Motor Skills*, *114*(1): 29-42.

Greene, M.R., Pasnak, R., and Romero, S. (2009). <u>A Time Lag Analysis of Temporal Relations between Motivation</u>, <u>Academic Achievement</u>, and <u>Two Cognitive Abilities</u>. *Early Education and Development*, 20(5): 799–825.

Kidd, J.K. Pasnak, R., Gadzichowski, M., Ferral-Like, M., and Gallington, D. (2008). <u>Enhancing Early Numeracy by Promoting the Abstract Thought Involved in the Oddity Principle, Seriation, and Conservation</u>. *Journal of Advanced Academics*, 19(2): 164–200.

Pasnak, R., Kidd, J.K., Gadzichowski, M.K., Gallington, D.A., Saracina, R.P., and Addison, K. (2008). <u>Can Emphasizing Cognitive Development Improve Academic Achievement?</u> *Education Research*, *50*(3): 261–276.

Pasnak, R., Kidd, J., Gadzichowski, M., Gallington, D., Saracina, R., and Addison, K. (2009). <u>Promoting Early Abstraction to Promote Early Literacy and Numeracy</u>. *Journal of Applied Developmental Psychology*, *30*(3): 239–249.

Pasnak, R., Maccubbin, E., and Ferral-Like, M. (2007). Using Developmental Principles to Assist At-Risk Preschoolers in Developing Numeracy and Phonemic Awareness. *Perceptual and Motor Skills*, 105: 163–176.

Pasnak, R., Kidd, J., Gadzichowski, M., Ferral-Like, M., Gallington, D., and Saracina, R. (2007). Nurturing Developmental Processes. *Journal of Developmental Processes*, *2*: 90–115.

Pasnak, R., Perez, K. and Romero, S. (2009). Encouraging Friendships in Preschool Classrooms. NHSA Dialog: A Research-To Practice Journal, 12, /342-346.

Romero, S., Perez, K., and Pasnak, R. (2009). <u>The Selection of Friends by Preschools Children</u>. *NHSA Dialog*, 12(4): 293–306.

Stewart, K., and Pasnak, R. (2010). Preschoolers' Knowledge About The Appearance Of Proper Names. *Perceptual and Motor Skills*, 111(2): 447-457.

## 2008 R305A080013

**Improving Children's Numerical Understanding** 

Carnegie Mellon University Siegler, Robert

Related IES Projects: <u>Using Cognitive Analyses to Improve Children's Math and Science</u> Learning (R305H020060) and Improving Children's Pure Numerical Estimation (R305H050035)

#### **Publications:**

Fazio, L.K., and Siegler, R.S. (2013). Microgenetic Learning Analysis: A Distinction Without A Difference. *Human Development*, *56*(1): 52-58.

Geary, D.C., Berch, D.B., Boykin, A.W., Embretson, S., Reyna, V., and Siegler, R.S. (2011). Learning Mathematics: Findings from the National (United States) Mathematics Advisory Panel. In N. Canto (Ed.), *Issues and Proposals in Mathematics Education* (pp. 175-221). Lisbon, Portugal: Gulbenkian.

Opfer, J. E., and Siegler, R. S. (2012). Development of Quantitative Thinking. In K.J. Holyoak and R.G. Morrison (Eds.), *Oxford Handbook of Thinking and Reasoning*, (pp. 585-605). Cambridge, UK: Oxford University Press.

Opfer, J.E., Siegler, R.S., and Young, C.J. (2011). The Powers of Noise-Fitting: Reply to Barth and Paladino. *Developmental Science*, 14: 1194-1204.

Ramani, G.B. and Siegler, R.S. (2011). <u>Reducing the Gap in Numerical Knowledge Between Low- and Middle-income Preschoolers</u>. *Journal of Applied Developmental Psychology*, *32*: 146-159.

Ramani, G.B., Siegler, R.S., and Hitti, A. (2012). Taking it to the Classroom: Number Board Games as a Small Group Learning Activity. *Journal of Educational Psychology*, 104: 661-672.

Schneider, M., and Siegler, R.S. (2010). <u>Representations of the Magnitudes of Fractions.</u> Journal of Experimental Psychology: Human Perception and Performance, 36(5): 1227-1238.

Siegler, R.S. (2012). From Theory to Application and Back: Following in the Giant Footsteps of David Klahr. In S.M. Carver and J. Shrager (Eds.), *The Journey from Child to Scientist: Integrating Cognitive Development and the Education Sciences* (pp. 17-36). Sage Press.

Siegler, R.S. (2010). Playing Numerical Board Games Improves Number Sense in Children from Low-Income Backgrounds. In R. Cowan, M. Saxton, and A. Tolmie (Eds.), *Understanding Number Development and Number Difficulties* (No. 7, British Journal of Educational Psychology, Monograph Series II: Psychological Aspects of Education—Current Trends, 15–29). Leicester, UK: British Psychological Society.

Siegler, R.S. (2010). Robbie Case: A Modern Classic. Preface for Developmental Interplay Between Mind, Brain, and Education: *Essays In Honor of Robbie Case* (pp. 1-6), M. Ferrari and L. Vuletic (Eds.). New York, NY: Springer Press.

Siegler, R.S., Duncan, G.J., Davis-Kean, P.E., Duckworth, K., Claessens, A., Engel, M., and ... Chen, M. (2012). Early Predictors Of High School Mathematics Achievement. *Psychological Science*, *23*(7): 691-697.

Siegler, R.S., Fazio, L.K., and Pyke, A. (2011). There Is Nothing So Practical As A Good Theory. In J.P. Mestre, B. H. Ross (Eds.), *The Psychology Of Learning and Motivation (Vol 55): Cognition In Education* (pp. 171-197). San Diego, CA US: Elsevier Academic Press.

Siegler, R.S., Fazio, L.K., Bailey, D.H., and Zhou, X. (2013). Fractions: The New Frontier For Theories Of Numerical Development. *Trends In Cognitive Sciences*, 17(1): 13-19.

Siegler, R.S., Thompson, C.A., and Schneider, M. (2011). An Integrated Theory Of Whole Number and Fractions Development. *Cognitive Psychology*, 62(4): 273-296.

Thompson, C.A., and Siegler, R.S. (2010). Linear Numerical-Magnitude Representations Aid Children's Memory For Numbers. *Psychological Science*, *21*(9): 1274-1281.

## R305A080134

**Guided Cognition for Unsupervised Learning of Mathematics** 

Fordham University Whitten, William Mitchell Rabinowitz

Related IES Projects: Guided Cognition for Unsupervised Learning (R305H050062)

## Publications:

Whitten, W. (2011). Learning From and For Tests. In A.S. Benjamin (Ed.), *Successful Remembering and Successful Forgetting: A Festschrift In Honor Of Robert A. Bjork* (pp. 217-234). New York, NY US: Psychology Press.

## Efficacy of Earobics Step I in English Language Learners and Low SES Minority Children

University of Texas Health Science Center at Houston Anthony, Jason

#### **Publications:**

Anthony, J.L., Williams, J.M., Durán, L.K., Gillam, S., Liang, L., Aghara, R., and ... Landry, S.H. (2011). Spanish Phonological Awareness: Dimensionality and Sequence Of Development During The Preschool and Kindergarten Years. *Journal Of Educational Psychology*, *103*(4): 857-876.

## R305A080231

## **The Diagnostic Geometry Assessment Project**

Boston College Russell, Michael

Related IES Projects: <u>Bridging the Gap: Applying Algebra Cognition Research to Develop and</u> Validate Diagnostic Classroom Algebra Testlet (R305H040099)

**Publications:** 

## R305A080287

## **Making Sense of Concrete Models for Mathematics**

Michigan State University Mix, Kelly Linda B. Smith

#### **Publications:**

Byrge, L., Smith, L. B., and Mix, K. (2013). Beginnings of Place Value: How Preschoolers Write Three-Digit Numbers. *Child Development*. Published first online, September 4, 2013, doi: 10.1111/cdev.12162.

## R305A080316

<u>Developing the Retrieval-Monitoring-Feedback (RMF) Method for Improving the</u> <u>Durability and Efficiency of Student Learning</u>

Kent State University Rawson, Katherine John Dunlosky

Related IES Projects: Supporting Efficient and Durable Student Learning (R305H050038)

## **Publications:**

Dunlosky, J., Hartwig, M.K., Rawson, K.A., and Lipko, A.R. (2011). Improving College Students' Evaluation of Text Learning Using Idea-Unit Standards. *Quarterly Journal of Experimental Psychology*, 64, 467-484.

Dunlosky, J., and Rawson, K.A. (2012). <u>Overconfidence Produces Underachievement: Inaccurate Self Evaluations Undermine Students' Learning and Retention</u>. *Learning and Instruction*, 22(4): 271-280.

Grimaldi, P.J., Pyc, M.A., and Rawson, K.A. (2010). Normative Multitrial Recall Performance, Metacognitive Judgments, and Retrieval Latencies for Lithuanian-English Paired Associates. *Behavior Research Methods*, 42, 634-642.

Lipko, A.R., Dunlosky, J., Hartwig, M., Rawson, K.A., Swan, K., and Cook, D. (2009). <u>Using Standards fo Improve Middle School Students' Accuracy at Evaluating the Quality of Their Recall</u>. *Journal of Experimental Psychology: Applied*, *15*(4): 307-318.

Pyc, M.A., and Rawson, K.A. (2009). <u>Testing the Retrieval Effort Hypothesis: Does Greater Difficulty Correctly Recalling Information Lead to Higher Levels of Memory</u>? *Journal of Memory and Language, 60*: 437–447.

Pyc, M.A., and Rawson, K.A. (2011). Costs and Benefits of Dropout Schedules of Test-Restudy Practice: Implications for Student Learning. *Applied Cognitive Psychology*, 25, 87-95.

Rawson, K.A., and Dunlosky, J. (2011). <u>Optimizing Schedules of Retrieval Practice for Durable and Efficient Learning: How Much is Enough?</u> *Journal of Experimental Psychology: General, 140*(3): 283-302.

Rawson, K.A., and Dunlosky, J. (2012). Relearning Attenuates the Benefits and Costs of Spacing. *Journal of Experimental Psychology: General*.

Rawson, K.A. and Dunlosky, J. (2012). Retrieval-Monitoring-Feedback (RMF) Technique for Producing Efficient and Durable Learning. To appear in R. Azevedo (Ed.) *The International Handbook of Metacognition and Learning Technologies*.

Rawson, K.A., and Dunlosky, J. (2012). When Is Practice Testing Most Effective For Improving The Durability and Efficiency Of Student Learning? *Educational Psychology Review*, 24(3): 419-435.

Wissman, K.T., Rawson, K.A., and Pyc, M.A. (2011). The Interim Test Effect: Testing Prior Material can Facilitate the Learning of New Material. *Psychonomic Bulletin and Review*, *18*(6): 1140-1147.

## R305A080341

## The Organization of Mathematical Knowledge

Northwestern University Rips, Lance

#### **Publications:**

Bartels, D.M., and Rips, L.J. (2010). <u>Psychological Connectedness and Intertemporal Choice</u>. *Journal Of Experimental Psychology: General*, 139(1): 49–69.

Hespos, S.J., Dora, B., Rips, L.J., and Christie, S. (2012). Infants Make Quantity Discriminations For Substances. *Child Development*, 83(2): 554-567.

Rips, L.J., and Hespos, S.J. (2011). Rebooting The Bootstrap Argument: Two Puzzles For Bootstrap Theories Of Concept Development. *Behavioral and Brain Sciences*, *34*: 145-146.

Rips, L.J. (2010). Two Causal Theories Of Counterfactual Conditionals. Cognitive Science, 34(2): 175-221.

Rips, L.J. (2011). Causation From Perception. Perspectives On Psychological Science, 6(1): 77-97.

Rips, L.J. (2011). Split Identity: Intransitive Judgments Of The Identity Of Objects. *Cognition*, 119(3): 356-373.

Rips, L.J. (2012). Bootstrapping: How Not To Learn. In N.M. Seel (Ed.), *Encyclopedia Of The Sciences Of Learning* (Part 2, pp. 473-477). Berlin: Springer.

Rips, L.J. (2013). How Many Is A Zillion? Sources Of Number Distortion. *Journal Of Experimental Psychology: Learning, Memory, and Cognition*, 39(4): 1257-1264.

## R305A080347

## Mindful Instruction of Nonmainstream Children

University of Illinois, Urbana-Champaign Anderson, Richard

Project Website: http://csr.ed.uiuc.edu/CR/index.html

Related IES Projects: <u>Improving Comprehension and Writing Through Reasoned Argumentation</u> (R305G030070)

#### **Publications:**

Jadallah, M., Anderson, R.C., Nguyen-Jahiel, K., Miller, B.W., Kim, I., Kou, L., Wu, X., and Dong, T. (2011). <u>Influence of a Teacher's Scaffolding Moves during Child-Led Small-Group Discussions</u>. *American Educational Research Journal*, *48*(1): 194-230.

Jadallah, M., Miller, B., Anderson, R.C., Nguyen-Jahiel, K., Archodidou, A., Zhang, J., and Grabow, K. (2009). Collaborative Reasoning about a Science and Public Policy Issue. In Margaret McKeown and Linda Kucan (Eds.), *Bringing reading researchers to life: Essays in Honor of Isabel L. Beck.* New York: Guilford Press.

Lin, T., Anderson, R.C., Hummel, J.E., Jadallah, M., Miller, B.W., Nguyen-Jahiel, K., and ... Dong, T. (2012). Children's Use Of Analogy During Collaborative Reasoning. *Child Development*, 83(4): 1429-1443.

Miller, B., Sun, J., Wu, X., and Anderson, R.C. (in press). Child Leaders in Collaborative Groups, in C. Hmelo-Silver, A. O'Donnell, C. Chan, and C. Chinn (Eds.), *International Handbook of Collaborative Learning*. London: Taylor and Francis.

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## Extension of an Argument Curriculum to an Academically Disadvantaged Middle-School Population

Columbia University, Teachers College Kuhn, Deanna

## **Publications:**

Crowell, A., and Kuhn, D. (In Press). Developing Dialogic Argumentation Skills: A Three-Year Intervention Study. *Journal Of Cognition and Development*.

Goldstein, M., Crowell, A., and Kuhn, D. (2009). What Constitutes Skilled Argumentation and How Does It Develop? *Informal Logic*, 29: 379-395.

Kuhn, D., and Crowell, A. (2011). Dialogic Argumentation As A Vehicle For Developing Young Adolescents' Thinking. *Psychological Science*, 22: 545-552.

## R305A080507

## Scaffolding Students' Use of Multiple Representations for Science Learning

University of Wisconsin Puntambekar, Sadhana

## **Publications:**

Bopardikar, A., Gnesdilow, D., Puntambekar, S. (2011). Effects Of Using Multiple Forms Of Support To Enhance Students' Collaboration During Concept Mapping. In H. Spada, G. Stahl, N. Miyake, and N. Law (Eds.), Connecting Computer-Supported Collaborative Learning to Policy and Practice: CSCL2011 Conference Proceedings. Volume I- Long Papers, (pp.104-111). Hong Kong: International Society of the Learning Sciences.

Carmichael, A., Chini, J.J., Rebello, N.S., and Puntambekar, S. (2010). Comparing Student Learning In Mechanics Using Simulations and Hands-On Activities. *Proceedings of the 2010Physics Education Research Conference, Portland, OR.* AIP Publishing, 1289, 89.

Chini, J.J., Carmichael, A., Rebello, N.S., and Puntambekar, S. (2010). Effects Of A Prior Virtual Experience On Students' Interpretations Of Real Data. *Proceedings of the 2010 PhysicsEducation Research Conference, Portland, OR.* AIP Publishing, 1289, 97.

Gnesdilow, D., Smith, G.W., and Puntambekar, S., (2010). An Analysis Of Science Teachers' Classroom Discourse Relating To The Use Of Models and Simulations In Physics. In Z.C. Zacharia, M.P. Constantinou, and M. Papaevripidou, (Eds.), *Application of New Technologies in Science Education: Proceedings of the International Conference of Computer Based Learning in Science (pp.* 141-152). Warsaw, Poland: OEIiZK.

Myneni, L.S. and Narayanan, N.H. (2012). ViPS: An Intelligent Tutoring System For Exploring and Learning Physics Through Simple Machines. *Proceedings of the Fourth International Conference on Computer Supported Education*, Porto, Portugal, The Institute for Systems and Technologies of Information, Control and Communication, Portugal, pp.73-82.

Rouinfar, A., Madsen, A.M., Hoang, T.D.N., Puntambekar, S., and Rebello, N.S. (2011). Comparing The Development Of Students' Conceptions Of Pulleys Using Physical and Virtual Manipulatives. *Proceedings of the 2011 Physics Education Research Conference*, Omaha, NE. AIP Publishing, 1413, 331.

Smith, G.W. and Puntambekar, S. (2010). Examining The Combination Of Physical and Virtual Experiments In An Inquiry Science Classroom. In Z.C. Zacharia, M.P. Constantinou, and M. Papaevripidou (Eds.), *Application of New Technologies in Science Education: Proceedings of the International Conference of Computer Based Learning in Science*, (pp.153-164). Warsaw, Poland: OEIiZK.

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Sullivan, S.A., Gnesdilow, D., and Puntambekar, S. (2011). Navigation Behaviors and Strategies Used By Middle School Students To Learn From A Science Hypertext. *Journal of Educational Multimedia and Hypermedia*, 20(4), 387-423.

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## R305A080621

A Cognitive Approach to Implementing Tree Thinking in High School and College Biology Curricula

Vanderbilt University Novick, Laura Kefyn Catley

#### **Publications:**

Catley, K.M., Novick, L.R., and Funk, D.J. (2012). The Promise and Challenges of Introducing Tree Thinking into Evolution Education. In K. Rosengren, E.M. Evans, S. Brem, and G. Sinatra (Eds.), *Evolution Challenges: Integrating Research and Practice in Teaching and Learning about Evolution*. Oxford University Press, 93.

Novick, L.R., and Catley, K.M. (in press). Assessing Students' Understanding of Macroevolution: Concerns Regarding the Validity of the MUM. *International Journal of Science Education*.

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Novick, L.R., Catley, K.M., and Funk, D.J. (2011). Inference is Bliss: Using Evolutionary Relationship to Guide Categorical Inferences. *Cognitive Science*, *35*:, 712-743.

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Phillips, B.C., Novick, L.R., Catley, K.M., and Funk, D.J. (in press). Teaching Tree Thinking to College Students: It's Not As Easy As You Think. *Evolution: Education and Outreach*.

## 2009

## R305A090100

An Efficacy Study of Two Computer-Based Attention Training Systems in Schools

**Tufts Medical Center** 

Steiner, Naomi

Ellen C. Perrin and R. Christopher Sheldrick

Project Website: <a href="http://www.drnaomisteiner.com/">http://www.drnaomisteiner.com/</a>

#### **Publications:**

Steiner, N.J., Sheldrick, R.C., Gotthelf, D., and Perrin, E.C. (2011). Computer-Based Attention Training in the Schools for Children With Attention Deficit/Hyperactivity Disorder: A Preliminary Trial. *Clinical pediatrics*, *50*(7): 615-622.

Steiner, N.J., Sidhu, T., Rene, K., Tomasetti, K., Frenette, E., and Brennan, R. T. (2013). Development and Testing of a Direct Observation Code Training Protocol for Elementary Aged Students With Attention Deficit/Hyperactivity Disorder. *Educational Assessment, Evaluation and Accountability*, 1-22.

## R305A090324

**Creating Scalable Interventions for Enhancing Student Learning and Performance** 

New York University Aronson, Joshua Jennifer Mangels and Matthew S. McGlone

**Publications:** 

## R305A090353

Focusing on the Efficacy of Teaching Advanced Forms of Patterning on First Graders'
Improvements in Reading, Mathematics, and Reasoning Ability

George Mason University Pasnak, Robert Julie Kidd

Related IES Projects: <u>Increasing Learning By Promoting Early Abstract Thought</u> (R305H030031) and <u>An Economical Improvement In Literacy and Numeracy</u> (R305B070542)

### **Publications:**

Kidd, J.K., Carlson, A.G., Gadzichowski, K.M., Boyer, C.E., Gallington, D.A., and Pasnak, R. (2013). Effects of Patterning Instruction on the Academic Achievement of 1st-Grade Children. *Journal of Research in Childhood Education*, *27*(2): 224-238.

Kidd, J.K., Curby, T.W., Boyer, C.E., Gadzichowski, K.M., Gallington, D.A., Machado, J.A., and Pasnak, R. (2012). Benefits of an Intervention Focused on Oddity and Seriation. *Early Education & Development*, 23(6): 900-918.

## 2010

## R305A100058

**Tools of the Mind: Promoting Self-Regulation and Academic Ability in Kindergarten** 

New York University

Blair, Clancy

Cybele Raver (New York University), Jennifer Hill (New York University), Carolyn Layzer (Abt Associates), Elena Bodrova (McREL), Deborah Leong (Metropolitan State College of Denver)

### **Publications:**

Blair, C., and Raver, C. (2012). Child Development In The Context Of Adversity: Experiential Canalization Of Brain and Behavior. *American Psychologist*, 67(4): 309-318.

## R305A100074

## <u>Improving Students' Skill at Solving Equations Through Better Encoding of Algebraic Concepts</u>

Temple University of the Commonwealth System of Higher Education Booth, Julie

Kenneth R. Koedinger (Carnegie Mellon University), Kristie J. Newton (Temple University)

#### **Publications:**

Booth, J.L., and Davenport, J.L. (2013). The Role of Problem Representation and Feature Knowledge in Algebraic Equation-Solving. *The Journal of Mathematical Behavior*, 32: 415-423.

Booth, J.L., Lange, K.E., Koedinger, K.R., and Newton, K.J. (2013). Using Example Problems To Improve Student Learning In Algebra: Differentiating Between Correct and Incorrect Examples. *Learning and Instruction*, *25*: 24-34.

## R305A100109

## <u>A Theory-Driven Search for the Optimal Conditions of Instructional Guidance in Algebra</u> Tutor

Carnegie Mellon University Anderson, John Steve Ritter (Carnegie Learning)

Related IES Projects: The Neural Markers of Effective Learning (R305H030016)

## **Publications:**

Lee, H.S., and Anderson, J.R. (2013). Student Learning: What Has Instruction Got To Do With It? *Annual Review of Psychology, 64*.

Lee, H.S., Anderson, A., Betts, S., and Anderson, J.R. (2011). When Does Provision Of Instruction Promote Learning? In L. Carlson, C. Hoelscher, and T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 3518-3523). Austin, TX: Cognitive Science Society.

Improving a Natural-Language Tutoring System that Engages Students in Deep Reasoning Dialogues about Physics

University of Pittsburgh

Katz, Sandra

Pamela Jordan, Diane Litman

Related IES Projects: <u>Exploring Studies to Derive Policies for Adaptive Natural-language</u> Tutoring in Physics (R305A130441)

## **Publications:**

Jordan, P., Katz, S., Albacete, P., Ford, M., and Wilson, C. (2012, May). Reformulating student contributions in tutorial dialogue. In *Proceedings of the Seventh International Natural Language Generation Conference* (pp. 95-99). Association for Computational Linguistics.

Katz, S., Albacete, P., Jordan, P., and Litman, D. (2011). Dialogue Analysis to Inform the Development of a Natural-language Tutoring System. In *Proceedings of 15th Workshop on the Semantics and Pragmatics of Dialogue* (pp. 167–175).

## R305A100389

## **Interactions Between Visual and Auditory Interventions for Reading**

University of California, San Diego Cottrell, Garrison

#### **Publications:**

Lawton, T. (2011). Improving Magnocellular Function In The Dorsal Stream Remediates Reading Deficits. *Optometry and Vision Development*, 42(3): 142-154.

## R305A100404

Promoting Transfer of the Control of Variables Strategy in Elementary and Middle School Children via Contextual Framing and Abstraction

Carnegie Mellon University Klahr, David

Stephanie Ann Siler

Related IES Projects: From Cognitive Models of Reasoning to Lesson Plans for Inquiry (R305H030229) and Training in Experimental Design: Developing Scalable and Adaptive Computer-based Science Instruction (R305H060034)

#### **Publications:**

Klahr, D., Zimmerman, C., and Jirout, J. (2011). Educational Interventions To Advance Children's Scientific Thinking. *Science*, *333*(6045): 971-975.

Siler, S.A., Klahr, D., and Matlen, B. (in press). Conceptual Change When Learning Experimental Design. In Vosniadou, S. (Ed.), *International Handbook of Research on Conceptual Change* (Vol. 2). New York: Routledge.

Siler, S.A., Klahr, D., and Prince, N. (2013). <u>Investigating the Mechanisms of Learning From a Constrained Preparation for Future Learning Activity</u>. *Instructional Science: An International Journal of the Learning Sciences*, 41(1): 191-216.

Siler, S.A., and Klahr, D. (2012). Detecting, Classifying and Remediating Children's Explicit and Implicit Misconceptions about Experimental Design. In Proctor, R.W., and Capaldi, E.J. (Eds.), *Psychology of Science: Implicit and Explicit Reasoning*. New York: Oxford University Press.

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## R305A100496

## **Exploring Reading Fluency and Its Underlying Behaviors**

University of Georgia Research Foundation, Inc. Ardoin, Scott

Katherine S. Binder (Mount Holyoke College)

## **Publications:**

Ardoin, S.P., Morena, L., Binder, K.S., and Foster, T. (in press). Examining the impact of feedback and repeated readings on oral reading fluency: Let's not forget prosody. *School Psychology Quarterly*.

Foster, T., Ardoin, S.P., and Binder, K.S. (in press). Underlying Changes In Repeated Reading: An Eye Movement Study. *School Psychology Review*.

Valle, A., Binder, K.S., Walsh, C.B., Nemier, C., and Bangs, K.E. (in press). Eye Movements, Prosody, and Word Frequency Among Average and High Skilled Second Grade Readers. *School Psychology Review*.

## R305A100571

## **Developing and Evaluating Measures of Formative Assessment Practices**

University of Colorado, Denver Ruiz-Primo, Maria Deanna Iceman Sands (University of Colorado, Denver)

## 2011

## R305A110038

<u>Cognitively Challenging Child-Directed Language as a Mechanism for Literacy</u> Development in Kindergarten

University of Michigan Neuman, Susan Tanya Kaefer and Ashley Pinkham

**Publications:** 

## R305A110060

## **Learning the Visual Structure of Algebra Through Dynamic Interactions with Notation**

University of Richmond

Landy, David

Robert Goldstone (Indiana University)

#### **Publications:**

Landy, D., Silbert, N. and Goldin, A. (2013), Estimating Large Numbers. *Cognitive Science*, *37*: 775–799. doi: 10.1111/cogs.12028.

Landy, D., Brookes, D., and Smout, R. (2012). Modeling abstract numeric relations using concrete notations. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 102-107).

## R305A110067

## Arithmetical and Cognitive Antecedents and Concomitants of Algebraic Skill

University of Houston

Cirino, Paul

Tammy Tolar (University of Houston), Lynn Fuchs (Vanderbilt University)

**Publications:** 

## R305A110090

## **Developing Guidelines for Optimizing Levels of Students' Overt Engagement Activities**

Arizona State University Chi, Michelene

Roy Levy

#### **Publications:**

Chi, M.H., and VanLehn, K.A. (2012). Seeing Deep Structure From The Interactions Of Surface Features. *Educational Psychologist*, *47*(3): 177-188.

Menekse, M., Stump, G., Krause, S., and Chi, M.T.H. (in press). Implementation Of Differentiated Active-Constructive-Interactive Activities In An Engineering Classroom. *Journal of Engineering Education*.

## An Alternative Statewide Assessment Strategy that Uses Test Results to Support Learning and Includes Measures of Problem Solving

Florida State University Rohani, Faranak Janet Sanfilippo

## **Publications:**

Oosterhof, A. (2011). <u>Upgrading High-Stakes Assessments</u>. Better Evidence-based Education, 3(3): 20–21.

## R305A110128

## Increasing Vocabulary in Preschoolers: Using Cognitive Science to Guide Pedagogy

Vanderbilt University

Dickinson, David

Roberta Golinkoff (University of Delaware) and Kathy Hirsh-Pasek (Temple University)

**Publications:** 

## R305A110198

## **Improving Children's Understanding of Mathematical Equivalence**

University of Notre Dame McNeil, Nicole

Related IES Projects: <u>Arithmetic Practice that Promotes Conceptual Understanding and Computational Fluency</u> (R305B070297)

**Publications:** 

## R305A110277

## **Mind Wandering During Reading**

Regents of the University of California Schooler, Jonathan Jonathan Smallwood

Related IES Projects: <u>Lapses In Meta-Cognition During Reading</u>: <u>Understanding Comprehension Failure</u> (R305H030235)

## **Publications:**

Franklin, M.S., Mrazek, M.D., Broadway, J.M., and Schooler, J.W. (2013). Disentangling Decoupling: Comment On Smallwood (2013). *Psychological Bulletin*, *139*(3): 536-541.

Franklin, M.S., Smallwood, J., and Schooler, J.W. (2011). Catching The Mind In Flight: Using Behavioral Indices To Detect Mindless Reading In Real Time. *Psychonomic Bulletin and Review*, 18(5): 992-997.

Mrazek, M.D., Franklin, M.S., Phillips, D., Baird, B., and Schooler, J.W. (2013). Mindfulness Training Improves Working Memory Capacity and GRE Performance While Reducing Mind Wandering. *Psychological Science*, *24*(5): 776-781.

Mrazek, M.D., Smallwood, J., Franklin, M.S., Chin, J.M., Baird, B., and Schooler, J.W. (2012). The Role Of Mind-Wandering In Measurements Of General Aptitude. *Journal Of Experimental Psychology: General*, *141*(4): 788-798.

Smallwood, J., Ruby, F.M., and Singer, T. (2013). Letting Go Of The Present: Mind-Wandering Is Associated With Reduced Delay Discounting. *Consciousness and Cognition: An International Journal*, 22(1): 1-7.

Smallwood, J., Tipper, C., Brown, K., Baird, B., Engen, H., Michaels, J.R., and ... Schooler, J.W. (2013). Escaping The Here and Now: Evidence For A Role Of The Default Mode Network In Perceptually Decoupled Thought. *Neuroimage*, *69*: 120-125.

## R305A110306

Eliciting Mathematics Misconceptions (EM2): A Cognitive Diagnostic Assessment System Education Development Center, Inc.

Buffington, Pamela Margaret Clements

**Publications:** 

## R305A110397

<u>Longitudinal Follow-up of Successful Parent/Child Intervention in Pre-school Children At Risk for School Failure</u>

University of Oregon Neville, Helen

Related IES Projects: <u>Training Attention in Preschool: Effects on Neurocognitive Functions and School Performance</u> (R305B070018) and <u>Training Attention in At-risk Preschoolers: Expansion</u> of our Successful Program to a Wider Population within Head Start (R305A110398)

<u>Training Attention in At-risk Preschoolers: Expansion of our Successful Program to a Wider Population within Head Start</u>

University of Oregon Neville, Helen

Related IES Projects: <u>Training Attention in Preschool: Effects on Neurocognitive Functions and School Performance</u> (R305B070018) and <u>Longitudinal Follow-up of Successful Parent/Child</u> Intervention in Pre-school Children At Risk for School Failure (R305A110397)

**Publications:** 

### R305A110444

<u>Classroom Environment, Allocation of Attention, and Learning Outcomes in K-4 Students.</u>
Carnegie Mellon University

Fisher, Anna

Ryan S. Baker (Worcester Polytechnic Institute) and Howard Seltman

#### **Publications:**

Fisher, A., Thiessen, E., Godwin, K., Kloos, H., and Dickerson, J. (2013). Assessing Selective Sustained Attention In 3- To 5-Year-Old Children: Evidence From A New Paradigm. *Journal Of Experimental Child Psychology*, 114(2): 275-294.

## R305110467

Fostering Comprehension and Knowledge-Building in Middle-School Struggling Readers

Regents of the University of Colorado

Caccamise, Donna

Walter Kintsch (University of Colorado at Boulder), P. David Pearson (University of California at Berkeley), and Sally Hampton (America's Choice)

**Publications:** 

## R305A110517

**Interleaved Mathematics Practice** 

University of South Florida Rohrer, Douglas Robert Dedrick

#### **Publications:**

Carpenter, S.K., Cepeda, N.J., Rohrer, D., Kang, S.K., and Pashler, H. (2012). Using Spacing To Enhance Diverse Forms Of Learning: Review Of Recent Research and Implications For Instruction. *Educational Psychology Review*, 24(3): 369-378.

Rohrer, D. (2012). Interleaving Helps Students Distinguish Among Similar Concepts. *Educational Psychology Review*, 24(3): 355-367.

## R305A110528

**Promoting Executive Function to Enhance Learning in Homeless/Highly Mobile Children** 

Regents of the University of Minnesota Masten, Ann Philip Zelazo and Stephanie Carlson

**Publications:** 

## R305A110550

**Developing a Manual for Test-Enhanced Learning in the Classroom** 

Washington University, St. Louis Roediger III, Henry Mark A. McDaniel, Kathleen B. McDermott

Related IES Projects: <u>Test-enhanced Learning</u> (R305H030339) and <u>Test-Enhanced Learning in the Classroom</u> (R305H060080)

#### Publications:

McDaniel, M.A., Thomas, R.C., Agarwal, P.K., McDermott, K.B., and Roediger, H.L. (in press). Quizzing In Middle School Science: Successful Transfer Performance On Classroom Exams. *Applied Cognitive Psychology*.

Agarwal, P.K., Bain, P.M., and Chamberlain, R.W. (2012). The Value Of Applied Research: Retrieval Practice Improves Classroom Learning and Recommendations From A Teacher, A Principal, and A Scientist. *Educational Psychology Review*, 24: 437-448.

McDaniel, M.A., Agarwal, P.K., Huelser, B.J., McDermott, K.B., and Roediger, H L. (2011). Test-Enhanced Learning In A Middle School Science Classroom: The Effects Of Quiz Frequency and Placement. *Journal of Educational Psychology*, *103*: 399-414.

Roediger, H.L., Agarwal, P.K., McDaniel, M.A., and McDermott, K B. (2011). Testing-Enhanced Learning In The Classroom: Long-Term Improvements From Quizzing. *Journal of Experimental Psychology: Applied*, *17*: 382-395.

An Exploration of Malleable Social and Cognitive Factors Associated with Early Elementary School Students' Mathematics Achievement

University of Chicago

Beilock, Sian

Susan Levine and Steve Raudenbush

### **Publications:**

Maloney, E., and Beilock, S.L. (2012). Math Anxiety: Who Has It, Why It Develops, and How To Guard Against It. *Trends in Cognitive Science*, *16*: 404-406.

### R305A110810

An Examination of the Qualities of Interactive Science Learning Environments That Promote Optimal Motivation and Learning

The Learning Partnership

McGee, Steven

Amanda Durik (Northern Illinois University) and Jess Zimmerman (University of Puerto Rico)

**Publications:** 

## R305A110811

<u>Comprehension SEEDING: Comprehension Through Self-Explanation, Enhanced Discussion and Inquiry Generation</u>

Boulder Language Technologies Inc.

Nielsen, Rodney

Robert Talbot (University of Colorado, Denver), Michelene Chi (Arizona State University)

Grant Transferred to: University of North Texas, Award Number R305A120808

#### **Publications:**

Chi, M.T.H., and VanLehn, K.A. (2012). Seeing Deep Structure From The Interactions Of Surface Fatures. *Educational Psychologist*, *47*(3): 177-188.

Myroslava, D., Nielsen, R.D. and Brew, C. (2012). Towards Effective Tutorial Feedback For Explanation Questions: A Dataset and Baselines. In *Proceedings of the 2012 Conference of the North American Association for Computational Linguistics: Human Language Technologies* (2012 NAACL:HLT), June 3-8, Montreal, Quebec, Canada.

Dzikovska, M.O., Nielsen, R.D., Brew, C., Leacock, C., Giampiccolo, D., Bentivogli, L., Clark, P, Dagan, I and Dang, H.T. (in press). SemEval-2013 Task 7: The Joint Student Response Analysis and 8<sup>th</sup> Recognizing Textual Entailment Challenge. In *Proceedings of the Second Joint Conference on Lexical and Computational Semantaics* (\*SEM 2013), 7<sup>th</sup> International Workshop on Semantic Evaluation (SemEval 2013). Published by the Association for Computational Linguistics. Atlanta, Georgia, USA. June 13-14, 2013.

## **Retrieval-Oriented Learning Strategies**

Purdue University Karpicke, Jeffrey

## Publications:

Grimaldi, P.J., and Karpicke, J.D. (2012). When and Why Do Retrieval Attempts Enhance Subsequent Encoding? *Memory and Cognition*, 40: 505-513.

Karpicke, J.D. (2012). Retrieval-Based Learning: Active Retrieval Promotes Meaningful Learning. *Current Directions In Psychological Science*, 21: 157-163.

Karpicke, J.D., and Bauernschmidt, A., (2011). Spaced Retrieval: Absolute Spacing Enhances Learning Regardless Of Relative Spacing. *Journal Of Experimental Psychology: Learning, Memory, and Cognition,* 37: 1250-1257.

Karpicke, J.D., and Blunt, J.R. (2011). Response To Comment On "Retrieval Practice Produces More Learning Than Elaborative Studying With Concept Mapping". *Science*, *334*: 453.

Karpicke, J.D., and Grimaldi, P.J. (2012). Retrieval-Based Learning: A Perspective For Enhancing Meaningful Learning. *Educational Psychology Review*, 24: 401-418.

Karpicke, J.D., and Smith, M.A. (2012). Separate Mnemonic Effects Of Retrieval Practice and Elaborative Encoding. *Journal Of Memory and Language*, 67: 17-29.

## R305A110920

<u>A Longitudinal Study of 3-D Spatial Skills and Mathematics Development in Elementary</u> School Children

University of Georgia Research Foundation, Inc.

Carr, Martha

Natalia Alexeev

**Publications:** 

## R305A110932

## **Exploring the Malleability of Executive Control**

Chancellor, Masters, and Scholars of University of Cambridge

Ellefson, Michelle

Zewelanji Serpell (Virginia State University) and Teresa Parr (Ashley-Parr, LLC)

## 2012

## R305A120145

Written Language Problems in Middle School Students: A Randomized Trial of the Self-Regulated Strategy Development (SRSD) Model Using a Tier 2 Intervention

University of North Carolina, Chapel Hill

Hooper, Stephen

**Publications:** 

## R305A120171

A Narrative Comprehension Intervention for Elementary School Children At-Risk for Attention-Deficit Hyperactivity Disorder

University of Kentucky Research Foundation

Lorch, Elizabeth

Richard Milich (University of Kentucky Research Foundation), Janice F. Almasi and Paul van den Broek (University of Leiden), Richard Charnigo and Angela Hayden Boyd (University of Kentucky Research Foundation)

**Publications:** 

## R305A120186

SimSelf: A Simulation Environment Designed to Model and Scaffold Learners' Self-Regulation Skills to Optimize Complex Science Learning

Vanderbilt University

Biswas, Gautam

Roger Azevedo (McGill University, Canada)

Related IES Projects: <u>A Learning by Teaching Approach to Help Students Develop Self-Regulatory Skills in Middle School Science Classrooms</u> (R305H060089)

**Publications:** 

## R305A120288

Perceptual Learning Technology in Mathematics Education: Efficacy and Replication

University of California, Los Angeles

Kellman, Philip

Christine Massey (University of Pennsylvania), Andrew Porter (University of Pennsylvania), and Laura Desimone (University of Pennsylvania)

Related IES Projects: <u>Integrating Conceptual Foundations in Mathematics through the Application of Principles of Perceptual Learning</u> (R305H060070) and <u>Perceptual and Adaptive Learning Technologies</u>: <u>Developing Products to Improve Algebra Learning</u>

### **Publications:**

Kellman, P.J., and Massey, C.M. (2013). Perceptual Learning, Cognition, and Expertise. In B.H. Ross (Ed.), *The Psychology Of Learning and Motivation (Vol 58)* (pp. 117-165). San Diego, CA US: Elsevier Academic Press.

## R305A120402

<u>Developing a Teacher-Based Intervention Involving Memory-Relevant Language During Instruction</u>

University of North Carolina, Chapel Hill Ornstein, Peter A. Jennifer L. Coffman, Patrick J. Curran

**Publications:** 

## R305A120416

**Spatial Ability as a Malleable Factor for Math Learning** 

Michigan State University
Mix, Kelly
Susan Levine (University of Chicago)

#### **Publications:**

Cheng, Y.L., and Mix K.S. (2012). Spatial Training Improves Children's Mathematics Ability. *Journal of Cognition and Development*. Accepted author version online DOI: 10.1080/15248372.2012.725186.

## R305A120451

The Effects of Arts-Integration on Retention of Content and Student Engagement
Johns Hopkins University
Hardiman, Mariale

**Publications:** 

## R305A120471

<u>Coordinating Multiple Representations: A Comparison of Eye Gaze Patterns of High School Students Who Do and Do Not Enroll in Calculus</u>

Temple University Cromley, Jennifer Julie Booth, Darin Kapanjie, and Thomas Shipley

## **Teaching Perceptual and Conceptual Processes in Graph Interpretation**

Northwestern University Franconeri, Steven

David Uttal (Northwestern University), Priti Shah (University of Michigan)

**Publications:** 

## R305A120554

## **Enhancing Learning and Transfer of Science Principles via Category Construction**

Research Foundation of SUNY Kurtz, Kenneth

Andy Cavagnetto

**Publications:** 

### R305A120671

## Improving Academic Achievement by Teaching Growth Mindsets about Emotion

Board of Trustees of the Leland Stanford Junior University Gross, James Carol S. Dweck, Geoffrey L. Cohen

**Publications:** 

## R305A120734

# Combining Advantages of Collaborative and Individual Learning with an Intelligent Tutoring System for Fractions

Carnegie Mellon University

Aleven, Vincent

Nikol Rummel (Ruhr-Universität Bochum, Germany and Carnegie Mellon University)

Related IES Projects: <u>Bringing Cognitive Tutors to the Internet: A Website that Helps Middle-School Students Learn Math</u> (R305A080093)

**Publications:** 

## 2013

## R305A130016

**Connecting Mathematical Ideas through Animated Multimodal Instruction** 

University of Wisconsin, Madison

Alibali, Martha

Mitchell Nathan, Voicu Popescu (Purdue University), Nicoletta Adamo-Villani (Purdue University), Susan Cook (University of Iowa)

Related IES Projects: <u>Does Visual Scaffolding Facilitate Students' Mathematics Learning?</u> Evidence From Early Algebra (R305H060097)

Publications:

## R305A130031

**Quality Talk: Developing Students' Discourse to Promote Critical-Analytic Thinking, Epistemic Cognition, and High-Level Comprehension** 

Pennsylvania State University

Murphy, Karen P.

Jeffrey Alan Greene (University of North Carolina at Chapel Hill)

Related IES Projects: <u>Group Discussions as a Mechanism for Promoting High-Level</u> Comprehension of Text (R305G020075)

Publications:

## R305A130082

<u>Promoting Discriminative and Generative Learning: Transfer in Arithmetic Problem Solving</u>

University of Wisconsin, Madison Kalish, Charles Martha Alibali, Timothy Rogers

**Publications:** 

## R305A130206

My Science Tutor: Improving Science Learning through Tutorial Dialogs (MyST)

Boulder Language Technologies Inc.

Ward, Wayne

Ronald Cole, Brandon Helding

Related IES Projects: <u>Improving Science Learning Through Tutorial Dialogs</u> (R305B070434)

<u>Use of Machine Learning to Adaptively Select Activity Types and Enhance Student Learning with an Intelligent Tutoring System</u>

Carnegie Mellon University Brunskill, Emma Vincent Aleven

Related IES Projects: <u>Bringing Cognitive Tutors to the Internet: A Website that Helps Middle-School Students Learn Math</u> (R305A080093)

Publications:

## R305A130239

The Impact of Theories of Intelligence on Self-Regulated Learning Strategies and Performance Improvement

Florida State University
Ehrlinger, Joyce
Kali Trzesniewski (University of California – Davis)

Grant Transferred to: Florida State University, Award Number R305A130699

**Publications:** 

## R305A130441

Exploring Studies to Derive Policies for Adaptive Natural-language Tutoring in Physics University of Pittsburgh

Katz, Sandra

Michael Ford, Pamela Jordan

Related IES Projects: <u>Improving a Natural-Language Tutoring System that Engages Students in Deep Reasoning Dialogues about Physics</u> (R305A100163)

**Publications:** 

## R305A130467

Developing an Online Tutor to Accelerate High School Vocabulary Learning

University of South Carolina

Adolf, Suzanne

Charles Perfetti (University of Pittsburgh), Jack Mostow (Carnegie Mellon University)

## **Exploring the Potential of Essay Testing for Improving Memory and Learning**

Duke University
Marsh, Elizabeth
Mark McDaniel (Washington University in St. Louis)

## EARLY LEARNING PROGRAMS AND POLICIES

## 2008

## R305A080188

Closing the SES Related Gap in Young Children's Mathematical Knowledge University of California, Berkeley Starkey, Prentice

Related IES Projects: <u>A Longitudinal Study of the Effects of a Pre-Kindergarten Mathematics Curriculum on Low-Income Children's Mathematical Knowledge</u> (R305J020026), <u>Scaling Up the Implementation of a Pre-Kindergarten Mathematics Curriculum in Public Preschool Programs</u> (R305J020026) and <u>A Randomized Study of the Efficacy of a Two-Year Mathematics Intervention for At-Risk Pre-Kindergarten and Kindergarten Students</u> (R305A120262)

**Publications:** 

## R305A080200

<u>Increasing the Efficacy of An Early Mathematics Curriculum with Scaffolding Designed to Promote Self-Regulation</u>

State University of New York, Buffalo Clements, Douglas Julia Sarama

**Publications:** 

## R305A080459

**Efficacy of Read It Again! In Rural Preschool Settings** 

Ohio State University Justice, Laura

## Publications:

Pentimonti, J.M. and Justice, L.M. (2010). <u>Teachers' Use of Scaffolding Strategies During Read-Alouds in</u> the Preschool Classroom. *Early Childhood Education Journal*, *37*: 241–248.

Turnbull, K., Bowles, R.P., Skibbe, L.E., Justice, L.M., and Wiggins, A.K. (2010). Theoretical Explanations For Preschoolers' Lowercase Alphabet Knowledge. *Journal Of Speech, Language, and Hearing Research*, *53*(6): 1757-1768.

## <u>Using Educational Television to Enhance Young Children's Language and Vocabulary Skills</u>

Florida State University Phillips, Beth

## **Publications:**

Phillips, B.M., Piasta, S.B., Anthony, J.L., Lonigan, C.J., and Francis, D.J. (2012). IRTs Of The ABCs: Children's Letter Name Acquisition. *Journal Of School Psychology*, *50*(4): 461-481.

## R305A080488

## **Test of Emergent Writing Skills**

Florida State University Puranik, Cynthia

## Publications:

Puranik, C.S., and Al Otaiba, S. (2012). Examining The Contribution Of Handwriting and Spelling To Written Expression In Kindergarten Children. *Reading and Writing*, 25(7): 1523-1546.

Puranik, C.S. and Apel, K. (2010). <u>Effect of Assessment Task and Letter Writing Ability on Preschool Children's Spelling Performance.</u> *Assessment for Effective Instruction* (Special Issue on Spelling), *36*(1): 46-56.

Puranik, C.S., and Lonigan, C.J. (2011). From Scribbles To Scrabble: Preschool Children's Developing Knowledge Of Written Language. *Reading and Writing*, 24(5): 567-589.

Puranik, C.S. and Lonigan, C., (2012). Early Writing Deficits in Preschoolers with Oral Language Difficulties. *Journal of Learning Disabilities*, 45(2): 179-190.

Puranik, C.S. and Lonigan, C., (2012). Name-writing proficiency, not length of name, is associated with preschool children's emergent literacy skills. *Early Childhood Research Quarterly*, 27, 284-294.

Puranik, C.S., Lonigan, C.J., and Kim, Y. (2011). Contributions Of Emergent Literacy Skills To Name Writing, Letter Writing, and Spelling In Preschool Children. *Early Childhood Research Quarterly*, *26*(4): 465-474.

Puranik, C.S., Wagner, R., Kim, Y., and Lopez, D. (2012). Assessing Elementary Students' Transcription and Text Generation during Written Translation: A Multivariate Approach. In M. Fayol, D. Alamargot, and V. Berninger (Eds.), *Translation of Thought to Written Text while Composing: Advancing Theory, Knowledge, Methods, and Applications*.

Puranik, C.S., Wagner, R.K., Kim, Y., and Lopez, D. (2012). Multivariate Assessment Of Processes In Elementary Students' Written Translation. In M. Fayol, D. Alamargot, V. W. Berninger (Eds.), *Translation of Thought to Written Text While Composing: Advancing Theory, Knowledge, Research Methods, Tools, and Applications* (pp. 249-274). New York, NY US: Psychology Press.

## 2009

## R305A090013

The World of Words: An Embedded Multimedia Vocabulary Intervention for Economically Disadvantaged Pre-K Children

University of Michigan Neuman, Susan

#### **Publications:**

Marulis, L. and Neuman, S.B. (2013). How Vocabulary Affects At-Risk Children: A Meta-analytic Review. *Journal Of Research On Educational Effectiveness*, 6: 223-262.

Neuman, S.B. (In Press). The Effects Of An Embedded Multimedia Curriculum For Low-Income Preschoolers. In O. Korat and A. Shamir, *Technology and Education*. NY: Springer.

Neuman, S.B. and Gambrell, L. (Eds). (2013). *Quality Reading Instruction In The Age Of Common Core Standards*. Newark, DE: International Reading Association.

Neuman, S.B. and Kaefer (2013). Enhancing the Intensity of Vocabulary Instruction for Preschoolers at Risk: The Effect Of Group Size On Low-Income Children's Vocabulary and Conceptual Knowledge. *The Elementary School Journal*, *113*(4): 589-608.

Neuman, S.B. and Wright, T. (2013). *All About Words: Vocabulary Instruction In The Age Of Common Core Standards*. NY: Teachers College Press.

Neuman, S.B. and Wright, T. (In Press). The Case For Vocabulary Instruction. In A. Stone Et Al.,. *Handbook Of Language and Literacy*. NY: Guilford Press.

Neuman, S.B., Kaefer, T., and Pinkham, A. (In Press). Building Word and World Knowledge In The Early Years. In K. Hall, T. Cremin, B. Comber, and L. Moll, *International Handbook Of Research In Children's Literacy, Learning and Culture*. Boston: Wiley Blackwell.

Wright, T. and Neuman, S.B. (2013). Vocabulary Instruction in Commonly Used Kindergarten Core Reading Curricula, *The Elementary School Journal*. *113*(3): 386-408.

## R305A090065

<u>Specific Aspects of Quality that Support Children's School Readiness in Community-Based and School-Based Early Childhood Programs</u>

University of Illinois at Chicago Gordon, Rachel Robert Kaestner and Everett Smith

## **Publications:**

Colwell, N., Gordon, R.A., Fujimoto, K., Kaestner, R., and Korenman, S. (2013). New Evidence On The Validity Of The Arnett Caregiver Interaction Scale: Results From The Early Childhood Longitudinal Study-Birth Cohort. *Early Childhood Research Quarterly*, 28(2): 218-233.

Gordon, R.A., Fujimoto, K., Kaestner, R., Korenman, S., and Abner, K. (2012). An Assessment of the Validity of the ECERS–R With Implications for Measures of Child Care Quality and Relations to Child Development. *Developmental Psychology*, 49(1): 146-160.

<u>Learning-Related Cognitive Self-Regulation School Readiness Measures for Preschool</u>
<u>Children: Optimizing Predictive Validity for Achievement</u>

Vanderbilt University Lipsey, Mark W.

Dale Farran, Sandra Wilson, and Carol Bilbrey

**Publications:** 

## R305A090114

Assessing the Efficacy of a Comprehensive Intervention in Physical Science on Head Start Teachers and Children

Education Development Center, Inc. Clark-Chiarelli, Nancy

Jess Gropen

Related IES Projects: <u>Assessing the Potential Impact of a Professional Development Program in</u> Science on Head Start Teachers and Children (R305M050060)

## **Publications:**

Gropen, J., Clark-Chiarelli, N., Hoisington, C., and Ehrlich, S.B. (2011). The Importance of Executive Function in Early Science Education. *Child Development Perspectives*, *5*(4): 298-304.

## R305A090169

Development of a Comprehensive Assessment System for Spanish-Speaking English Language Learner's Early Literacy Skills

Florida State University Lonigan, Christopher Christopher Schatschneider

**Publications:** 

## R305A090183

<u>Teacher Quality: The Role of Teacher Study Groups as a Model of Professional Development in Early Literacy for Preschool Teachers</u>

University of California, Berkeley Cunningham, Anne

## Preparing to Succeed: An Efficacy Trial of Two Early Childhood Curricula

President and Fellows of Harvard College, Graduate School of Education Yoshikawa, Hirokazu

Nonie Lesaux, Richard Murnane, John Willett, and Christina Weiland

### **Publications:**

Weiland, C., Ulvestad, K., Sachs, J. and Yoshikawa, H. (In press). Associations Between Classroom Quality and Children's Vocabulary and Executive Function Skills In An Urban Public Prekindergarten Program. *Early Childhood Research Quarterly*.

Weiland, C., Wolfe, C., Hurwitz, M., Yoshikawa, H., Clements, D., and Sarama, J. (2012). Early Mathematics Assessment: Validation Of A Preschool Mathematics Screening Tool. *Journal of Educational Psychology*, *32*(3): 311-333.

Weiland, C. and Yoshikawa, H. (In press). The Impacts Of An Urban Public Prekindergarten Program On Children's Mathematics, Language, Literacy, Executive Function, and Emotional Skills: Evidence From Boston. *Child Development*.

#### R305A090212

Improving School Readiness of High Risk Preschoolers: Combining High Quality
Instructional Strategies with Responsive Training for Teachers and Parents
University of Texas Health Science Center at Houston
Landry, Susan H.
Cathy Guttentag, Paul Swank, and Heather Taylor

**Publications:** 

## R305A090467

<u>Preschool Program Impacts on School Readiness; Variation by Prior Child Language and Attention Skills, and the Quality of Infant/Toddler Care</u>

University of California, Irvine Farkas, George Margaret Burchinal and Greg Duncan

## **Publications:**

Duncan, G.J. and Sojourner, A.J. (Accepted). Can Intensive Early Childhood Intervention Programs Eliminate Income-Based Cognitive and Achievement Gaps? *Journal of Human Resources*.

Keys, T.D., Farkas, G., Burchinal, M.R., Duncan, G.J., Vandell, D.L., Li, W., and ... Howes, C. (2013). Preschool Center Quality and School Readiness: Quality Effects and Variation By Demographic and Child Characteristics. *Child Development*, *84*(4): 1171-1190.

Li, W., Farkas, G., Duncan, G.J., Burchinal, M.R., Vandell, D.L. (Accepted). The Timing of High Quality Child Care and Children's Cognitive and Academic Development. *Developmental Psychology*.

<u>Lens on Science: Development and Validation of a Computer-Administered, Adaptive, IRT-Based Science Assessment for Preschool Children</u>

University of Miami Greenfield, Daryl Randall Penfield

Related IES Projects: <u>Early Childhood Hands-On Science Curriculum Development and Demonstration</u> (R305K060036), <u>ECHOS: Early Childhood Hands on Science</u> (R305A100275), and <u>Enfoque en Ciencia</u>: Extending the Cultural and Linguistic Validity of a Computer Adaptive Assessment of Science Readiness for Use with Young Latino Children (R305A130612)

**Publications:** 

## R305A090533

Experimental Validation of the Tools of the Mind Prekindergarten Curriculum

Vanderbilt University Farran, Dale Mark Lipsey

### **Publications:**

Fuhs, M., Farran, D. C., and Nesbitt, K. (2013). Preschool Classroom Processes as Predictors of Children's Cognitive Self-Regulation Skills Development. *School Psychology Quarterly*, doi:10.1037/spq0000031

## 2010

## R305A100154

Development of an Online Course to Improve Teachers' Use of Effective Teacher-Child Interactions During Delivery of Early Literacy and Language Instruction

University of Virginia Hamre, Bridget

Publications:

## R305A100233

Extending the Cultural and Linguistic Validity of the Adjustment Scales for Preschool Intervention (ASPI) for Low-Income, Latino Children

University of Miami Shearer, Rebecca

**ECHOS: Early Childhood Hands on Science** 

Miami Museum of Science Brown, Judy

Related IES Projects: <u>Early Childhood Hands-On Science Curriculum Development and Demonstration</u> (R305K060036) and <u>Lens on Science: Development and Validation of a Computer-Administered, Adaptive, IRT-Based Science Assessment for Preschool Children (R305A090502)</u>

**Publications:** 

#### R305A100566

**Touch Your Toes! Developing a New Measure of Behavioral Regulation** 

Oregon State University

McClelland, Megan

Alan Acock (Oregon State University), Ryan Bowles (Michigan State University) and Claire Cameron Ponitz (University of Virginia)

**Publications:** 

### R305A100574

The Availability of Early Childhood Education and Care in the United States: Exploring Links Between Policy, Availability and Effects, 1990-2005

Stanford University

Loeb, Susanna

Daphna Bassok

## **Publications:**

Bassok, D., Fitzpatrick, M., and Loeb, S. (2012). *Does State Preschool Crowd-Out Private Provision? The Impact of Universal Preschool on the Childcare Sector in Oklahoma and Georgia* (No. w18605). National Bureau of Economic Research.

## 2011

### R305A110035

Effective Early Childhood Education Programs: Meta-Analytic Lessons from High Quality Program Evaluations

President and Fellows of Harvard College, Graduate School of Education

Yoshikawa, Hirokazu

Greg Duncan (University of California, Irvine), Katherine Magnuson (University of Wisconsin-Madison), and Holly S. Schindler, (Harvard University)

Shager, H.M., Schindler, H.S., Magnuson, K.A., Duncan, G.J., Yoshikawa, H., and Hart, C.D. (2013). Can Research Design Explain Variation In Head Start Research Results? A Meta-Analysis Of Cognitive and Achievement Outcomes. *Educational Evaluation and Policy Analysis*, 35(1): 76-95.

### R305A110074

**Exploring the Predictors of School Readiness: Meta-analysis of Longitudinal Research** 

Vanderbilt University Wilson, Sandra Dale Farran and Mark Lipsey

**Publications:** 

### R305A110284

Using Developmental Science to Create a Computerized Preschool Language Assessment

University of Delaware Golinkoff, Roberta

Kathy Hirsh-Pasek (Temple University) and Jill de Villiers (Smith College)

**Publications:** 

### R305A110293

**Development and Validation of the Narrative Assessment Protocol (NAP)** 

Michigan State University

Bowles, Ryan

Laura Justice and Shayne Piasta, (Ohio State University), Lori Skibbe and Mark Reckase (Michigan State University)

## Publications:

Bowles, R. P., Pentimonti, J. M., Gerde, H. K., and Montroy, J. J. (2013). Item Response Analysis of Uppercase and Lowercase Letter Name Knowledge. *Journal of Psychoeducational Assessment*. Published online first: DOI: 10.1177/0734282913490266.

### R305A110483

**Numbers Plus Efficacy Study** 

High/Scope Educational Research Foundation Schweinhart, Larry Beth Marshall and Tomoko Wakabayashi

Related IES Projects: <u>Numbers Plus: A Comprehensive Approach to Early Mathematics Education</u> (R305K060089)

## **Development of the School Readiness Curriculum Based Measurement System**

University of Texas Health Science Center at Houston Anthony, Jason

Michael Assel, Susan Landry, Emily Solari, Paul Swank, and Jeffery Williams

**Publications:** 

## R305A110638

## **WORLD Efficacy Study**

Texas A and M Research Foundation

Gonzalez, Jorge

Sharolyn Pollard-Durodola (Texas A&M University- College Station), Laura Sáenz (The University of Texas—Pan American), and Aaron Taylor (Texas A&M University)

Related IES Projects: <u>Project Words of Oral Reading and Language Development (Project WORLD)</u> (R305G050121)

**Publications:** 

## R305A110730

## Early Childhood Teachers as Socializers of Young Children's Emotional Competence

George Mason University

Denham, Susanne

## **Publications:**

Denham, S.A., Bassett, H.H., and Zinsser, K. (2012). Early Childhood Teachers As Socializers Of Young Children's Emotional Competence. *Early Childhood Education Journal*, 40(3): 137-143.

## 2012

## R305A120172

Improving School Readiness with Emotional Literacy: Developing the RULER Preschool Program

Yale University

Rivers, Susan

Walter Gilliam, March Brackett, and Peter Salovey

**Cultivating Young Scientists: Expanding Foundations of Science Literacy** 

Education Development Center, Inc.

Clark-Chiarelli, Nancy

Jess Gropen (Education Development Center, Inc.)

**Publications:** 

## R305A120323

<u>Using Validated Measures of Children's Engagement with Teachers, Peers, and Tasks to Guide Teachers' Response Toward Children with Emotional and Behavioral Challenges</u>

University of Virginia

Downer, Jason

Amanda Williford (University of Virginia) and Rebecca Shearer (University of Miami)

Publications:

## R305A120391

A Randomized Efficacy Trial of the Kids in Transition to School (KITS) Program to Improve the School Readiness of Children in Disadvantaged Communities

Oregon Social Learning Center

Pears. Katherine

Hyoun Kim, Phillip Fisher, and Cynthia Healey

**Publications:** 

## R305A120449

Research and Development of Spanish Individual Growth and Development Indicators (S-IGDIs): Early Literacy Identification Measures for Spanish-English Bilingual Children

Regents of the University of Minnesota

McConnell, Scott

Alisha Wackerle-Hollman

Efficacy Trial of MyTeachingPartner-Mathematics and Science Curricula and Implementation Support System

University of Virginia Kinzie, Mable Jessica Whitaker, Robert C. Pianta, and Amanda Williford

**Publications:** 

## R305A120783

Getting Ready for School: An Integrated Curriculum to Help Teachers and Parents
Support Preschool Children's Early Literacy, Math, and Self-Regulation Skills
Trustees of Columbia in the City of New York
Duch, Helena
Kimberly Noble

**Publications:** 

## 2013

## R305A130118

Measuring Preschool Program Quality: Multiple Aspects of the Validity of Two Widely-Used Measures

Board of Trustees of the University of Illinois Gordon, Rachel Kerry Hofer (Vanderbilt University), Everett Smith (University of Illinois at Chicago)

**Publications:** 

## R305A130336

<u>Kidsteps II: Promoting School Readiness Through Social-Emotional Skill Building in Preschool</u>

University of Massachusetts Medical School Upshur, Carole Melodie Wenz-Gross

<u>Developing an Early Literacy Assessment for Spanish-Speaking Children in Preschool:</u>
PALS español PreK

University of Virginia Invernizzi, Marcia

Karen Ford, Francis Huang, and Patrick Meyer

Related IES Projects: <u>Designing Assessment to Enhance English Literacy Development Among</u> Spanish-Speaking Children in Grades K–3(R305A090015)

**Publications:** 

## R305A130612

Enfoque en Ciencia: Extending the Cultural and Linguistic Validity of a Computer Adaptive Assessment of Science Readiness for Use with Young Latino Children University of Miami Greenfield, Daryl Randall Penfield (University of North Carolina), Ximena Dominguez (SRI)

Related IES Projects: <u>Lens on Science</u>: <u>Development and Validation of a Computer-</u> <u>Administered</u>, <u>Adaptive</u>, <u>IRT-Based Science Assessment for Preschool Children</u> (R305A090502)

## **EDUCATION LEADERSHIP**

## 2004

## R305E040085

Assessing the Impact of Principals' Professional Development: An Evaluation of the National Institute for School Leadership

University of Pennsylvania Supovitz, Jonathan

#### **Publications:**

Barnes, C.A., Camburn, E., Sanders, B.R., and Sebastian, J. (2010). <u>Developing Instructional Leaders:</u> <u>Using Mixed Methods to Explore the Black Box of Planned Change in Principals' Professional Practice.</u> *Educational Administration Quarterly, 46*(2): 241–279.

Camburn, E.M., Spillane, J., and Sebastian, J. (2010). <u>Assessing the Utility of a Daily Log for Measuring Principal Leadership Practice</u>. *Educational Administration Quarterly*, 46(5): 707-737.

Camburn, E.M., Huff, J., Goldring, E., and May, H. (2010). <u>Assessing the Validity of Annual Surveys for Measuring Principal Leadership Practice</u>. *Elementary School Journal*, *111*(2): 314-335.

Goldring, E., Huff, J., May, H., and Camburn, E. (2008). <u>School Context and Individual Characteristics:</u> What Influences Principal Practice? *Journal of Educational Administration, 46* (3): 332–352.

Goldring, E., Huff, J., Spillane, J.P., and Barnes, C.A. (2009). <u>Measuring the Learning-centered Leadership</u> <u>Expertise of School Principals</u>. *Leadership and Policy in Schools*, 8 (2): 197–228.

May, H. and Supovitz, J.A. (2011). <u>The Scope of Principal Efforts to Improve Instruction</u>. *Educational Administration Quarterly*, 47(2): 332-352.

May, H., Huff, J., and Goldring, E. (2012). A Longitudinal Study Of Principals' Activities and Student Performance. *School Effectiveness and School Improvement*, 23(4): 417-439.

Spillane, J.P., Camburn, E.M., and Pareja, A.S. (2007). <u>Taking a Distributed Perspective to the School Principal's Workday.</u> *Leadership and Policy in Schools*, 6 (1): 103–125.

Spillane, J.P., Kim, C., and Frank, K.A. (2012). Instructional Advice and Information Providing and Receiving Behavior In Elementary Schools: Exploring Tie Formation As A Building Block In Social Capital Development. *American Educational Research Journal*, 49(6): 1112-1145.

Supovitz, J., Sirinides, P., and May, H. (2010). <u>How Principals and Peers Influence Teaching and Learning.</u> *Educational Administration Quarterly*, 46(1): 31–56.

Spillane, J.P., Pareja, A.S., Dorner, L., Barnes, C., May, H., Huff, J., and Camburn, E.M. (2010). <u>Mixing Methods in Randomized Controlled Trials (RCTs): Validation, Contextualization, Triangulation, and Control.</u> *Educational Assessment, Evaluation and Accountability, 22*(1): 5–28.

## R305E040100

# <u>Learning from Efforts to Strengthen Educational Leadership in Urban School Districts</u> MDRC

Quint, Janet

#### **Publications:**

Quint, J.C., Akey, T.M., Rappaport, S., and Willner, C.J. (2007). *Instructional Leadership, Teaching Quality, and Student Achievement: Suggestive Evidence From Three Urban School Districts*. New York, NY: MDRC

## 2005

## R305E050082

## The Coaching Model: A Collaborative Pilot Program

School Leadership Center of Greater New Orleans Riedlinger, Brian

**Publications:** 

## R305E050135

## **Study of Innovative School Leadership Performance Evaluation Systems**

University of Wisconsin, Madison Milanowski, Anthony T.

#### **Publications:**

Kimball, S.M., and Milanowski, A.T., and McKinney, S.A. (2009). <u>Assessing the Promise of Standards-Based Performance Evaluation for Principals: Results From a Randomized Trial</u>. *Leadership and Policy in Schools*, 8 (3): 233–236.

Kimball, S.M., Heneman, H.G. III, and Milanowski, A. (2007). <u>Performance Evaluation and Compensation for Public School Principals: Results From a National Survey.</u> *ERS Spectrum, 25:4*–21.

## 2007

## R305A070298

## **Improving Principal Leadership Through Feedback and Coaching**

Vanderbilt University Bickman, Leonard

#### **Publications:**

Huff, J., Preston, C., and Goldring, E. Implementation Of A Coaching Program For School Principals: Evaluating Coaches' Strategies and The Results. *Educational Management, Administration and Leadership.* 41(4).

## 2008

## R305A080370

The Development and Validation of the Vanderbilt Assessment of Leadership in Education
University of Pennsylvania
Porter, Andrew

#### **Publications:**

Cravens, X., Goldring, E.B., Porter, A.C., Polikoff, M.S., Murphy, J., and Elliott, S.N. (2013). Setting Proficiency Standards for School Leadership Assessment: An Examination of Cut Score Decision Making. *Educational Administration Quarterly*, 49(1): 124-160.

Goldring, E., Cravens, X., Murphy, J. Porter, A., Elliott, S., and Carson, B. (2009). <u>The Evaluation of Principals: What and How Do States and Urban Districts Assess Leadership?</u> *Elementary School Journal,* 110 (1): 19–39.

Goldring, E., Porter, A., Murphy, J., Elliott, S.N., and Cravens, X. (2009). <u>Assessing Learning-centered Leadership: Connections to Research, Professional Standards, and Current Practices.</u> *Leadership and Policy in Schools*, 8: 1–36.

Murphy, J., Elliott, S.N., Goldring, E., and Porter, A.C. (2010). Leaders For Productive Schools. In E. Baker, P. Peterson, and B. McGaw (Eds.), International Encyclopedia of Education (3rd ed.). Oxford, UK: Elsevier Limited.

Murphy, J.F., Goldring, E.B., Cravens, X.C., Elliott, S.N., and Porter, AC. (2011). The Vanderbilt Assessment of Leadership in Education: Measuring Learning-Centered Leadership. *Journal of East China Normal University*, 29(1): 1-10.

Polikoff, M.S., May, H., Porter, A.C., Elliott, S.N., Goldring, E., and Murphy, J. (2009). <u>An Examination of Differential Item Functioning in the Vanderbilt Assessment of Leadership in Education</u>. *Journal of School Leadership*, *19*(6): 661-679.

Porter, A.C., Murphy, J., Goldring, E., Elliott, S.N., and Cravens, X.C. (in press, 2012). Vanderbilt Assessment of Leadership in Education: A New Tool For Principal Evaluation and Professional Growth. In J. Shen (Ed.), *Tools for Improving Principalship*. Berne, Switzerland: Peter Lang Publishing Group.

Porter, AC., Polikoff, M., Goldring, E.B., Murphy, J., Elliott, S.N., and May, H. (2010). <u>Developing a Psychometrically Sound Assessment of School Leadership: The VAL-ED as a Case Study.</u> *Educational Administration Quarterly, 46* (2): 135–173.

Porter, A.C., Polikoff, M.S., Goldring, E., Murphy, J.; Elliott, S.N.; and May, H. (2010) Investigating The Validity and Reliability Of The Vanderbilt Assessment Of Leadership In Education. *Elementary School Journal*, 111(2): 282-313.

## <u>Test and Test Manuals Developed Under this Award</u>

Elliott, S.N., Murphy, J., Goldring, E., and Porter, A. (2008). *VAL-ED Handbook: Implementation and interpretation of the Vanderbilt Assessment of Leadership in Education*. Nashville: Discovery Education Assessments

Elliott, S.N., Murphy, J., Goldring, E., and Porter, A. (2008). *VAL-ED Users' Guide*. Nashville: Discovery Education Assessments.

Porter, A.C., Murphy, J., Goldring, E.B., and Elliott, S.N. (2008). *VAL-ED: The Vanderbilt Assessment of Leadership in Education*. Nashville: Discovery Education Assessments.

Porter, A.C., Murphy, J., Goldring, E.B., Elliott, S.N., Polikoff, M.S., and May, H. (2008). *VAL-ED: Technical Manual (Version 1.0)*. Nashville: Discovery Education Assessments.

## R305A080696

A Randomized Control Trial to Assess the Efficacy of the Balanced Leadership Program
Texas A&M University
Goddard, Roger

### **Publications:**

Goddard, R.D., Goddard, Y.L., Kim, E.S., and Miller, R.J. (2012). Coherent Evidence: The Roles Of Instructional Leadership, Teacher Collaboration, and Collective Efficacy Beliefs. *American Educational Research Journal*.

Jacob, R., Goddard, R., and Kim, E.S. (2012). Assessing The Use Of Aggregate Data In The Evaluation Of School-Based Interventions: Implications For Evaluation Research and State Policy Regarding Public Use Data. *Educational Evaluation and Policy Analysis*.

## 2009

## R305A090265

<u>Developing and Validating the Next Generation of Leadership Evaluation Tools: Formative Assessment for High Stakes Accountability</u>

University of Wisconsin Halverson, Richard Carolyn Kelley

**Publications:** 

## R305A090316

School Leadership for Student Achievement: A Survey and Quasi-Experimental Analysis of Leadership in Florida

University of Wisconsin Camburn, Eric

**Publications:** 

## R305A090421

School Leader Communication Model (SLCM)
Syracuse University
Dotger, Benjamin

Project Website: http://edusims.syr.edu/

#### **Publications:**

Dotger, B. (2012). The School Leader Communication Model: An Emerging Method For Bridging School Leader Preparation and Practice. *Journal of School Leadership*, *21*(6): 871-892.

Dotger, B. and Alger, A. (In Press). Challenging Parent, Challenged Curricula: Utilizing Simulated Interactions To Enhance School Leader Preparation. *Planning and Changing*.

## 2010

### R305A100286

Assessing School Leaders' Development of Management Skills and Leadership: A Longitudinal Mixed-Methods Study

Board of Trustees of the Leland Stanford Junior University Loeb, Susanna

Jason A. Grissom (University of Missouri)

#### **Publications:**

Grissom, J.A., and Loeb, S. (2011). Triangulating Principal Effectiveness: How Perspectives Of Parents, Teachers, and Assistant Principals Identify The Central Importance Of Managerial Skills. *American Education Research Journal*, 48(5): 1091-1123.

Myung, J., Loeb, S., and Horng, E. (2011). Tapping The Principal Pipeline: Identifying Talent For Future School Leadership In The Absence Of Formal Succession Management Programs. *Education Administration Quarterly*, 47(5): 695-727.

Loeb, S., Beteille, T., and Kalogrides, D. (2012). Effective Schools: Teacher Hiring, Assignment, Development, and Retention. *Education Finance and Policy*, 7(3): 269–304.

Beteille, T., Kalogrides, D., and Loeb, S. (2012). Stepping Stones: Principal Career Paths and School Outcomes. *Social Science Research*, *41*(4): 904–919.

Loeb, S. Kasman, M. and Valant, J. (Forthcoming). Principals' Perceptions Of Competition For Students In Milwaukee Schools. *Education Finance and Policy*.

Kalogrides, D., Loeb, S., and Beteille, T. (Forthcoming). Systematic Sorting: Teacher Characteristics and Class Assignments. *Sociology Of Education*.

## R305A100289

**Learning Leadership: Kernel Routines for Instructional Improvement** 

Northwestern University

Spillane, James

Brian Junker (Carnegie Mellon University), Richard Correnti (University of Pittsburgh)

## **Publications:**

Spillane, J.P. (2012). Data In Practice: Conceptualizing The Data-Based Decision-Making Phenomena. *American Journal Of Education*, 118(2): 113-141.

## **EDUCATION POLICY, FINANCE, AND SYSTEMS**

## 2004

## R305E040031

**Low Cost Experiments to Support Local School District Decisions** 

Empirical Education, Inc.

Newman, Denis

#### Publications:

Cabalo, J.V., Ma, B., and Jaciw, A. (2007). Comparative Effectiveness of Carnegie Learning's Cognitive Tutor Bridge to Algebra Curriculum: a Report of a Randomized Experiment in the Maui School District. Palo Alto, CA: Empirical Education Inc.

Cabalo, J.V., Jaciw, A., and Vu, M. (2007). Comparative Effectiveness of Carnegie Learning's Cognitive Tutor Algebra I Curriculum: a Report of a Randomized Experiment in Maui School District. Palo Alto, CA: Empirical Education Inc.

Cabalo, J.V., Ma, B., and Jaciw, A. (2007). Comparative Effectiveness of Professional Development and Support Tools for World Language Instruction: a Report on a Randomized Experiment in Delaware. Palo Alto, CA: Empirical Education Inc.

Cabalo, J.V., Ma, B., Jaciw, A., Miller, G.I., and Vu, M. (2007). Effectiveness of Ongoing Professional Development on Interactive Whiteboard Use: a Report of a Randomized Experiment in Forsyth County Schools. Palo Alto, CA: Empirical Education Inc.

Cabalo, J.V., Newman, D., and Jaciw, A. (2006). Effectiveness of TCI's History Alive! for Eighth Graders: A Report of a Randomized Experiment in Alum Rock Union Elementary School District. Palo Alto, CA: Empirical Education Inc.

Greene, D., and David, J.L. (2005). *Implementing Low-Cost RCTs to Support School District Decisions:* Formative Evaluation Report for Year One. Palo Alto, CA: Bay Area Research Group.

Greene, D., and David, J.L. (2006). *Implementing Low-Cost RCTs to Support School District Decisions:* Formative Evaluation Report for Year Two. Palo Alto, CA: Bay Area Research Group.

Newman, D. (2007). Generalization and the Unit of Decision Making. Palo Alto, CA: Empirical Education Inc.

Newman, D. (2007). *The District Motivation and Design Constraints of Experimental Evaluations*. Palo Alto, CA: Empirical Education Inc.

## R305E040056

Public School Choice: Magnet Schools, Peer Effects, and Student Achievement Vanderbilt University Goldring, Ellen

Related IES Projects: <u>National Research and Development Center on School Choice</u> (R305A040043)

#### **Publications:**

Ballou, D. (2009). Magnet School Outcomes. In M. Berends, M.G. Springer, D. Ballou, and H.J. Walberg (Eds.), *Handbook of Research on School Choice*. New York, NY: Taylor and Francis Group.

Goldring, E. (2009). Perspectives on Magnet Schools. In M. Berends, M.G. Springer, D. Ballou, and H.J. Walberg (Eds.), *Handbook of Research on School Choice*. New York, NY: Taylor and Francis Group.

## R305E040096

**How Should We Organize Primary Schooling? Grade Span, School Size and Student Academic Achievement** 

New York University Stiefel, Leanna

#### **Publications:**

Rubenstein, R., Schwartz, A.E., Stiefel, L., and Zabel, J. (2009). Spending, Size, and Grade Span in K–8 Schools, *Education Finance and Policy*, 4 (1): 60–88.

Schwartz, A., Stiefel, L., Rubenstein, R., and Zabel, J. (2011). The Path Not Taken: How Does School Organization Affect Eighth-Grade Achievement? *Educational Evaluation and Policy Analysis*, *33*(3): 293-317.

## 2005

## R305E050052

<u>Implementing Public School Choice in Charlotte, NC: Impacts on Student Outcomes, Competitiveness and Racial Segregation</u>

National Bureau of Economic Research

Kane, Thomas

#### **Publications:**

Hastings, J.S., Kane, T.J., and Staiger, D.O. (2005). Parental Preferences and School Competition: Evidence From a Public School Choice Program (NBER Working Paper #11805). Cambridge, MA: National Bureau of Economic Research, Inc.

Hastings, J.S., Kane, T.J., and Staiger, D.O. (2006). Preferences and Heterogeneous Treatment Effects in a Public Choice Lottery (NBER Working Paper #12145). Cambridge, MA: National Bureau of Economic Research, Inc.

Hastings, J.S., Kane, T.J., and Staiger, D.O. (2006). Gender and Performance: Evidence From School Assignment by Randomized Lottery. *American Economic Review*, 96(2): 232–236.

Hastings, J.S., Kane, T.J., Staiger, D.O., and Weinstein, J.M. (2007). The Effects of Randomized School Admissions on Voter Participation. *Journal of Public Economics*, 91 (5/6): 915–937.

## R305E050089

## **Cost Accounting for Student-Level Resources**

Pennsylvania State University Hartman, William

#### **Publications:**

Denison, D.V., Hartman, W.T., Stiefel, L., and Deegan, M.M. (2011). A Model for School-level Resource Reporting. *Public Performance and Management Review*, *35*(1): 29-53.

### R305E050137

The Unintended Consequences of a Major Education Policy Reform: California's Class Size Reduction, Student Achievement, and the 'Social Multiplier'

National Bureau of Economic Research

Bayer, Patrick

#### **Publications:**

Bayer, P., Fernando, F., and Mcmillan, R. (2007). <u>A Unified Framework for Measuring Preferences for Schools and Neighborhoods</u>, *Journal of Political Economy*, *115* (4):2001–2052.

## 2006

## R305E060025

**Do Lower Barriers to Entry Affect Student Achievement and Teacher Retention: The Case of Math Immersion** 

State University of New York, Albany

Wyckoff, James

#### **Publications:**

Boyd, D., Grossman, P., Hammerness, K., Lankford, H., Loeb, S., Ronfeldt, M., and Wyckoff, J. (2012). Recruiting Effective Math Teachers: Evidence From New York City. *American Educational Research Journal*, 49(6): 1008-1047.

## 2007

## R305A070117

<u>Determinants of Student Outcomes in an Urban School District: Educational Interventions and Family Choices</u>

Carnegie Mellon University

Epple, Dennis

Related IES Projects: <u>Estimation and Inference in Education Research when Actions by</u> Participants Impact Validity and Availability of Data (R305D090016)

#### **Publications:**

Tharp-Taylor, N., Dembosky, and Gill. (2007). <u>Partners in Pittsburgh Schools' Excellence for All Initiative: Findings from the First Year of Implementation</u>. Santa Monica, CA: RAND DB–544.

Engberg, J., Gill, B., Zamarro, G., Zimmer, R. (2012) Closing Schools In A Shrinking District: Do Students Outcomes Depend On Which Schools Are Closed? *Journal of Urban Economics* 71: 189-203.

Engberg, J, Epple, D., Imbrogno, J., Sieg, H. and R. Zimmer (2014). Evaluating Education Programs That Have Lotteried Admission and Selective Attrition. *Journal of Labor Economics*.

## R305A070377

The Effects of Racial School Segregation on the Black-White Achievement Gap Stanford University
Reardon, Sean

Related IES Projects: <u>Addressing Practical Problems in Achievement Gap Estimation:</u>
Nonparametric Methods for Censored Data (R305D110018)

### **Publications:**

Ho, A.D., and Reardon, S.F. (2012). Estimating Achievement Gaps from Test Scores Reported in Ordinal 'Proficiency' Categories. *Journal of Educational and Behavioral Statistics* 37(4):489-517. Awarded the AERA Palmer O. Johnson Award, for the best article published in an AERA journal in 2012.

Reardon, S.F., and Rhodes, L. (2011). The Effects of Socioeconomic School Integration Plans on Racial School Desegregation. In Erica Frankenberg and Elizabeth DeBray (Eds.), *Integrating Schools in a Changing Society: New Policies and Legal Options for a Multiracial Generation*. Chapel Hill: University of North Carolina Press.

Reardon, S.F., Grewal, E., Kalogrides, D., and Greenberg, E. (2012). *Brown* fades: The End of Court Ordered School Desegregation and the Resegregation of American Public Schools. *Journal of Policy Analysis and Management* 31(4): 876-904.

Reardon, S.F., Yun, J.T., Chmielewski, A.K. (2012). Suburbanization and School Segregation. In William F. Tate (Ed.), *Research on Schools, Neighborhoods, and Communities: Toward Civic Responsibility*. Washington, DC: American Educational Research Association.

## R305A070381

## **Evaluation of the Kalamazoo Promise**

Western Michigan University Miron, Gary

#### **Publications:**

Miron, G., Jones, J.N., and Kelaher-Young, A.J. (2011). <u>The Kalamazoo Promise and Perceived Changes in School Climate</u>. *Education Policy Analysis Archives*, *19*(17).

Jones, J., Miron, G., and Kelaher Young, A.J. (2012). <u>The Kalamazoo Promise and Perceived Changes in Teacher Beliefs, Expectations, and Behaviors</u>. *Journal of Educational Research*, *105*(1): 36-51.

## 2008

## R305A080038

Creating an Integrated Resource Information System to Assess Student, Teacher,
Classroom, and School Effects on Value-Added Student Learning Gains and to Support
More Cost-Effective Budgeting

University of Wisconsin Odden, Allan Robert Meyer

### **Publications:**

Kraemer, S., Geraghty, E., Lindsey, D., and Raven, C. (2010). School Leadership View of Human and Organizational Factors in Performance Management: A Comparative Analysis of High-and Low-Performing Schools. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 54, No. 17, pp. 1287-1291). SAGE Publications.

Watson, J., Smith, T. J., Kraemer, S., Halverson, R., and Woodcock, A. (2009). Macroergonomics in Education: On Your Mark, Set, GO!. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 53, No. 16, pp. 1042-1046). SAGE Publications.

## R305A080202

Catholic School Prices, Private School Attendance, and Student Outcomes

National Bureau of Economic Research

Dynarski, Susan

## **Publications:**

Dynarski, S., Gruber, J., and Li, D. (2009). *Cheaper By the Dozen: Using Sibling Discounts at Catholic Schools to Estimate the Price Elasticity of Private School Attendance*. (NBER Working Paper #15461). Cambridge, MA: National Bureau of Economic Research, Inc.

## R305A080280

School Responses to AYP Classification Due to Student Subgroups and the Relationship to Student Achievement

University of Pennsylvania Supovitz, Jonathan

## **Publications:**

Beaver, J.K.and Weinbaum, E.H. (2012). Measuring School Capacity, Maximizing School Improvement. *CPRE Policy Brief.* Philadelphia: Consortium for Policy Research in Education.

Weinbaum, E.H., Weiss, M. and Beaver, J.K. (2012). Learning From NCLB: School Responses To Accountability Pressure. *CPRE Policy Brief.* Philadelphia, Consortium for Policy Research in Education.

Weiss, M.J. and Weinbaum, E.H. (Under Review). Multiple rating score Regression Discontinuity Design: Lessons from attempting to estimate the effect of Adequate Yearly Progress (AYP) labels. *CPRE Technical Report*. Philadelphia: Consortium for Policy Research in Education.

<u>Kids Integrated Data System (KIDS): An Evidence-Based System for Enhancing Educational Proficiency and Social Adjustment</u>

Trustees of the University of Pennsylvania Fantuzzo, John

### **Publications:**

Fantuzzo, J., Perlman, S., and Dobbins, E., (2011). Types and Timing Of Child Maltreatment and Early School Success: A Population-Based Investigation. *Children and Youth Services Review, 33*: 1404-1411.

LeBoeuf, W.A., Fantuzzo, J.W., and Lopez, M.L. (2010). <u>Measurement and Population Miss-Fits: A Case Study on the Importance of Using Appropriate Measures to Evaluate Early Childhood Interventions.</u> *Applied Developmental Science, 14* (1): 45–53.

Perlman, S., and Fantuzzo, J. (2010). Timing and Influence of Early Experiences of Child Maltreatment and Homelessness on Children's Educational Well-being. *Children and Youth Services Review, 32*(2): 874–883.

Rouse, H.L., Fantuzzo, J.W., and LeBoeuf, W. (2011). Comprehensive Challenges for the Well Being of Young Children: A Population-based Study of Publicly Monitored Risks in a Large Urban Center. *Child and Youth Care Forum*.

### R305A080372

Massachusetts Expanded Learning Time: Implementation and Outcomes

Massachusetts Department of Elementary and Secondary Education Conaway, Carrie

Project Website: <a href="http://www.doe.mass.edu/research/reports/eval.html">http://www.doe.mass.edu/research/reports/eval.html</a>

**Publications:** 

## 2009 R305A090019

The Impact of School Accountability Sanctions on Student Outcomes: Evidence from North Carolina

Duke University Vigdor, Jacob Thomas Ahn

The Effects of No Child Left Behind on Student Outcomes and School Services

Columbia University Rockoff, Jonah Randall Reback (Barnard College)

**Publications:** 

## R305A090039

Modeling Longitudinal Effects of New York City's 5th Grade Promotion Policy on Student Achievement through a Regression Discontinuity Design

RAND Corporation Mariano, Louis Sheila Kirby

Publications:

## R305A090162

A Randomized Trial of Reducing Stereotype Threat Among Minority and Economically Disadvantaged Students

National Bureau of Economic Research Dee, Thomas

**Publications:** 

## R305A090252

<u>Collaborative, Technology-Enhanced Lesson Planning as an Organizational Routine for</u> Continuous, School-Wide Instructional Improvement

University of Pittsburgh Stein, Mary

#### **Publications:**

Stein, M.K., Russell, J., and Smith, M.S. (2011). The Role Of Tools In Bridging Research and Practice In An Instructional Improvement Effort. In W. Tate, K. King and C. Anderson (Eds.), *Disrupting Tradition: Research and Practice Pathways In Mathematics Education* (pp. 33-44). Reston, VA: National Council of Teachers of Mathematics.

Smith, M.S., Cartier, J.L., Eskelson, S.L., and Tekkumru-Kisa, M. (*in press*). Building A School-University Collaboration: A Search For Common Ground. To Appear In J. Bay-Williams and B. Speer (Eds.), *Professional Collaborations In Mathematics Teaching and Learning: Seeking Success For All. The Seventy-Fourth Yearbook Of The National Council Of Teachers Of Mathematics* (2012). Reston, Va: National Council Of Teachers Of Mathematics.

A Multisite Evaluation of the Implementation and Impact of Supplemental Educational Services

University of Wisconsin Heinrich, Carolyn

Grant Transferred to: University of Texas at Austin, Award Number R305A100995

#### Publications:

Good, A., Burch, P., Stewart, M., Acosta, R., and Heinrich, C. (accepted). Instruction Matters: Lessons from a Mixed Method Evaluation of Out-of-School Time Tutoring Under No Child Left Behind. *Teachers College Record*.

Heinrich, C., and Nisar, H. (2013). The Efficacy of Private Sector Providers in Improving Public Educational Outcomes. *American Educational Research Journal*. First published on May 21, 2013 doi:10.3102/0002831213486334.

## R305A090369

Summer School and Summer Learning: An Examination of Selection, Implementation, and Program Effects in a Multiyear Randomized Trial

University of Oregon Zvoch, Keith

## **Publications:**

Zvoch, K., and Stevens, J.J. (2013). Summer School Effects in a Randomized Trial. *Early Childhood Research Quarterly*, 28(1): 24-32.

Zvoch, K. (2011). Summer School and Summer Learning: An Examination Of The Short- and Longer Term Changes In Student Literacy. *Early Education and Development*, *22*(4): 649-675.

Zvoch, K. (2012). How Does Fidelity of Implementation Matter? Using Multilevel Models to Detect Relationships Between Participant Outcomes and the Delivery and Receipt of Treatment. *American Journal of Evaluation*, 33(4): 547-565.

## R305A090481

Systems Leadership in Middle School: A School Policy Intervention With Random Assignment

University of South Florida Borman, Kathryn Brian Rowan (University of Michigan)

## Reclassification of English Language Learners as Fully English Proficient

University of California, Los Angeles Herman, Joan

### **Publications:**

Kim, J. and Herman, J. L. (2010). When To Exit ELL Students: Monitoring Subsequent Success and Failure In Mainstream Classrooms After Ells' Reclassification (CRESST Report 779). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing (CRESST). (ERIC ED 520430).

Kim, J. (2011). Relationships Among and Between ELL Status, Demographic Characteristics, Enrollment History, and School Persistence (CRESST Report 810). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing (CRESST). (ERIC ED 527529).

Kim, J. and Herman, J.L. (2012). *Understanding Patterns and Precursors Of ELL Success Subsequent To Reclassification* (CRESST Report 818). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing (CRESST). (ERIC ED 540604).

## 2010

## R305A100040

Alignment Across K–12 Writing Standards, Assessments, Achievement, and Postsecondary Expectations: A State-by-State Analysis

Michigan State University

Troia, Gary

Natalie G. Olinghouse (University of Connecticut)

#### **Publications:**

Troia, G.A. (2013). Writing Instruction Within A Response To Intervention Framework: Prospects and Challenges For Elementary and Secondary Classrooms. In S. Graham, C.A. MacArthur, and J. Fitzgerald (Eds.), *Best Practices in Writing Instruction* (2<sup>nd</sup> ed., pp. 403-427). New York: Guilford Press.

### R305A100358

**Turnaround Intervention for Transformation of High-Need Schools** 

Turnaround for Children, Inc.

Stamler, Joan

Rebecca Herman (AIR)

## Strategic School Funding for Results Project, Phase II

American Institutes for Research Chambers, Jay Jim Brown

#### **Publications:**

Haxton, C.L., Chambers, J. G., Manship, K., Cruz, L. and O'Neil, C. (2012). Perspectives Of Central Office Staff, Principals, Teachers, and School Site Councils On Resource Allocation and SSFR Implementation In 2010–11 (Twin Rivers Unified School District). Washington, DC: American Institutes for Research. Retrieved from

http://www.schoolfundingforresults.org/TRUSD\_SSFR%20implementation%20report\_2010-11\_FINAL.pdf

## R305A100706

<u>Preventing Truancy in Urban Schools Through Provision of School Services by Truancy Officers</u>

National Opinion Research Center (NORC) Guryan, Jonathan Jens Ludwig (University of Chicago)

Grant Transferred to: Northwestern University, Award Number R305A120809

**Publications:** 

## 2011

## R305A110112

**Evaluating the Success of Undergraduates in the U-Pace Intervention to Improve Academic Achievement for All Postsecondary Education Students** 

University of Wisconsin at Milwaukee

Reddy, Diane

Raymond Flemming, Laura Pedrick, Rodney Swain, Simone Conceicao, Cindy Walker

## **Publications:**

Reddy, D.M., Fleming, R., Pedrick, L.E., Jirovec, D.L., Pfeiffer, H.M., Ports, K.A., Barnack-Tavlaris, J. L., Helion, A.M., and Swain, R.A. (2013). U-Pace instruction: Improving student success by integrating content mastery and amplified assistance. *Journal of Asynchronous Learning Networks*, 17(1): 147–154.

An Efficacy Trial of Two Interventions Designed to Reduce Stereotype Threat

Vulnerability and Close Academic Performance Gaps

Board of Regents of the University of Wisconsin System

Borman, Geoffrey

Adam Gamoran

**Publications:** 

## R305A110149

Assessing the Efficacy of Online Credit Recovery in Algebra I for At-Risk Ninth Graders

American Institutes for Research

Heppen, Jessica

Elaine Allensworth (Consortium on Chicago School Research), Kirk Walters and Anja Kurki (American Institutes for Research)

**Publications:** 

## R305A110242

**Strategic Responses to School Accountability** 

The Urban Institute Ozek, Umut Michael Hansen

Grant Transferred to: American Institutes for Research, Award Number R305A110968

Publications:

### R305A110420

<u>Developing More Effective Test-Based Accountability by Improving Validity Under High-Stakes Conditions</u>

President and Fellows of Harvard College Koretz, Daniel Jennifer Jennings (New York University)

The Impact of Incentives to Recruit and Retain Teachers in "Hard-to-Staff" Subjects: An Analysis of the Florida Critical Teacher Shortage Program

Florida State University

Sass, Tim

Li Feng (Texas State University-San Marcos)

Grant Transferred to: Georgia State University, Award Number R305A110967

**Publications:** 

## R305A110913

Strengthening School Leaders' Instructional Leadership Practice Through Developing
Teachers' Abilities to Integrate Technology in Support of Student Learning
Rectors and Visitors of the University of Virginia

Dexter, Sara

Project Website: <a href="http://canlead.net">http://canlead.net</a>

## **EDUCATION TECHNOLOGY**

## 2008

## R305A080141

Advancing Ecosystems Science Education via Situated Collaborative Learning in Multi-User Virtual Environments

President and Fellows of Harvard College, Graduate School of Education Dede, Christopher

### **Publications:**

Clarke-Midura, J., Dede, C., and Norton, J. (2011). Next Generation Assessments for Measuring Complex Learning in Science. In Policy Analysis for California Education and Rennie Center for Education Research & Policy, *The Road Ahead for State Assessments* (pp. 27-40). MA: Rennie Center for Education Research & Policy.

Clarke-Midura, J., and Yudelson, M. V. (2013). Towards Identifying Students' Causal Reasoning Using Machine Learning. In *Artificial Intelligence in Education* (pp. 704-707). Springer Berlin Heidelberg.

Code, J., Clarke-Midura, J., Zap, N., and Dede, C. (2011). Student Perceptions of Immersive Virtual Environments for the Meaningful Assessment of Learning. In *World Conference on Educational Multimedia, Hypermedia and Telecommunications* (Vol. 2011, No. 1, pp. 358-367).

## R305A080514

<u>Virtual Performance Assessments for Measuring Student Achievement in Science</u> President and Fellows of Harvard College, Graduate School of Education Dede, Christopher

## **Publications:**

Clarke, J., and Dede, C. (2010). Assessment, Technology, and Change. *Journal of Research in Teacher Education*, 42(3): 309–328.

## R305A080589

The Writing Pal: An Intelligent Tutoring System that Provides Interactive Writing Strategy Training

University of Memphis McNamara, Danielle

Related IES Projects: Exploration of Automated Writing Strategy Instruction for Adolescent Writings Using The Writing Pal (R305A120707) and Center for the Study of Adult Literacy (CSAL): Developing Instructional Approaches Suited to the Cognitive and Motivational Needs for Struggling Adults (R305C120001)

### Publications:

Crossley, S.A. and McNamara, D.S. (2009). Computationally Assessing Lexical Differences In L1 and L2 Writing. *Journal Of Second Language Writing*, 18: 119-135.

Crossley, S.A. and McNamara, D.S. (2010). Cohesion, Coherence, and Expert Evaluations Of Writing Proficiency. In R. Catrambone and S. Ohlsson (Eds.), *Proceedings Of The 32nd Annual Conference Of The Cognitive Science Society* (pp.984-989). Austin, TX: Cognitive Science Society.

Crossley, S.A., and McNamara, D.S. (2011). Text Coherence and Judgments Of Essay Quality: Models Of Quality and Coherence. *Proceedings Of The 33rd Annual Conference Of The Cognitive Science Society*.

Crossley, S.A., and McNamara, D.S. (2011). Understanding Expert Ratings Of Essay Quality: Coh-Metrix Analyses Of First and Second Language Writing. *IJCEELL*, 21: 170-191.

Crossley, S.A., and McNamara, D.S. (In Press). Predicting Second Language Writing Proficiency: The Role Of Cohesion, Readability, and Lexical Difficulty. *Journal Of Research In Reading*.

Crossley, S.A., and McNamara, D.S. (In Press). Shared Features Of L2 Writing: Intergroup Homogeneity and Text Classification. *Journal Of Second Language Writing*.

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### R305A080594

**Guru: A Computer Tutor that Models Expert Human Tutors** 

University of Memphis Olney, Andrew

Related IES Project: <u>Center for the Study of Adult Literacy (CSAL)</u>: <u>Developing Instructional Approaches Suited to the Cognitive and Motivational Needs for Struggling Adults</u> (R305C120001)

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### R305A080596

Explicit Scaffolding for Word Learning in Context through Multimedia Word Annotation University of California, Santa Cruz Scott, Judith

SimScientists: Interactive Simulation-Based Science Learning Environments

WestEd

Quellmalz, Edys

Related IES Projects: <u>SimScientists Assessment System</u> (R305A120390) and <u>SimScientists</u> Model Progressions (R305A130160)

**Publications:** 

## R305A080622

**Expanding the Science and Literacy Curricular Space: The GlobalEd II Project** 

University of Connecticut

Brown, Scott

Related IES Projects: GlobalEd 2 (R305A130195)

#### **Publications:**

Brown, S. W., Lawless, K. A., and Boyer, M. A. (2013). Promoting Positive Academic Dispositions Using a Web-based PBL Environment: The GlobalEd 2 Project. *Interdisciplinary Journal of Problem-based Learning*, 7(1). Published first online.

Lawless, K., Brown, S., and Boyer, M. (2012). A Socio-scientific Approach to STEM Education: The GlobalEd2 Project. In *World Conference on Educational Multimedia, Hypermedia and Telecommunications* (Vol. 2012(1): 395-400).

## R305A080628

## Accelerating Fluency Development in an Automated Reading Tutor

Carnegie Mellon University

Mostow, Jack

Paula Schwanenflugel (University of Georgia), Joseph Beck (Worcester Polytechnic Institute)

Related IES Projects: Explicit Comprehension Instruction in an Automated Reading Tutor that Listens (R305B070458) and Developing Vocabulary in an Automated Reading Tutor (R305A080157)

## **Publications:**

Duong, M., and Mostow, J. (2009). Detecting Prosody Improvement in Oral Rereading. Second ISCA Workshop on Speech and Language Technology in Education (SLaTE), Wroxall Abbey Estate, Warwickshire, England.

Duong, M., Mostow, J., and Sitaram, S. (2011). Two Methods for Assessing Oral Reading Prosody ACM Transactions on Speech and Language Processing (Special Issue on Speech and Language Processing of Children's Speech for Child-machine Interaction Applications), 7(4): 14:11-22.

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Xu, Y., and Mostow, J. (2011, July 6-8). Logistic Regression in a Dynamic Bayes Net Models Multiple Subskills Better! [Best Poster Nominee]. In M. Pechenizkiy, T. Calders, C. Conati, S. Ventura, C. Romero, and J. Stamper (Eds.), *Proceedings of the 4th International Conference on Educational Data Mining* (pp. 337-338). Eindhoven, Netherlands.

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### R305A080664

<u>Teaching Every Student: Using Intelligent Tutoring and Universal Design to Customize the Mathematics Curriculum</u>

University of Massachusetts, Amherst Woolf, Beverly

#### **Publications:**

Arroyo, I., Cooper, D.G., Burleson, W., and Woolf, B.P. (2010). Bayesian Networks and Linear Regression Models of Students' Goals, Moods, and Emotions. In Ryan S.J.D. Baker, Kalina Yacef, (Eds.), *Handbook of educational data mining*, 323-338. New York, NY: Routledge Press.

Arroyo, I., Mehranian, H., and Woolf, B. (2010). Effort-based Tutoring: An Empirical Approach to Intelligent Tutoring. *The Third International Conference on Educational Data Mining* (EDM2010). (pp 1–10). Pittsburgh, PA.

Arroyo, I., Woolf, B.P. Burleson, W., (2011). Using an Intelligent Tutor and Math Fluency Training to Improve Math Performance, International Journal of Artificial Intelligence in Education, IOS Press, Vol 21, Number 1-2, 2011.

Arroyo, I., Woolf, B.P., Royer, J.M., Tai, M., and English, S. (2010). Improving Learning Through Intelligent Tutoring and Basic Skills Training. In V. Aleven, J. Kay, and J. Mostow (Eds.) *International Conference on Intelligent Tutoring*. (pp. 423–432). Pittsburgh, PA.

Cooper, D., Arroyo, I., Woolf, B.P., (2011) Actionable Affective Processing for Automatic Tutor Intervention, in D'Mello, S., Calvo, R., (Eds), Affect and Learning Technologies, pp 127-140, Springer Publishing.

Cooper, D., Muldner, K., Arroyo, I., Woolf, B.P., and Burleson, W. (2010). Ranking Feature Sets for Emotion Models used in Classroom Based Intelligent Tutoring Systems, In the *International Conference on User Modeling and Adaptive Presentation*. (pp. 135–146). Honolulu, HI.

Shanabrook, D., Cooper, D., Woolf, B., and Arroyo, I. (2010) Identifying High-Level Student Behavior Using time-based Motif Discovery. *The Third International Conference on Educational Data Mining* (EDM2010). (pp 191–200). Pittsburgh, PA.

Woolf, B. (2010). Social and Caring Tutors, KEYNOTE ADDRESS, Published in the Full Proceedings, V. Aleven, J. Kay, and J. Mostow (Eds.) *International Conference on Intelligent Tutoring Systems*. (pp 5–13). Pittsburg, PA.

Woolf, B. P., Burleson, W., Arroyo, I., Dragon, T., and Picard, R. (2009). Affect-Aware Tutors: Recognizing and Responding to Student Affect Emotional Intelligence for Computer Tutors, *Special Issue on Modeling and Scaffolding Affective Experiences to Impact Learning, International Journal of Learning Technology*, 4 (3–4): 129–164.

Woolf, B., Affective Tutors: Automatic Detection of and Response to Student Emotion, Chapter 10, (2010) Roger Nkambou, Jacqueline Bourdeau and Riichiro Mizoguchi (Eds.), *Advances in Intelligent Tutoring Systems*, Volume 308, 2010.

Woolf, B., Student Modelling, Chapter 12, (2010), Advances in Intelligent Tutoring Systems, Roger Nkambou, Jacqueline Bourdeau and Riichiro Mizoguchi (Eds.), Studies In *Computational Intelligence*, Volume 308, 2010.

Woolf, B.P., Arroyo, I., Muldner, K., Burleson, W., Cooper, D., Dolan, R., and Christopherson, R.M. (2010). The Effect of Motivational Learning Companions on Low-Achieving Students and Students with Learning Disabilities. In V. Aleven, J. Kay, and J. Mostow (Eds.) *International Conference on Intelligent Tutoring Systems*. (pp 327–337). Pittsburg, PA.

## 2009

### R305A090394

The Assess-as-You-Go Writing Assistant: A Student Work Environment that Brings Together Formative and Summative Assessment
University of Illinois, Urbana-Champaign

Cope, William

Project Website: http://newlearningonline.com/assess-as-you-go/

## **Publications:**

Cope, B., Kalantzis, M., McCarthey, S., Vojak, C., and Kline, S. (2011). Technology-Mediated Writing Assessments: Paradigms and Principles. *Computers and Composition* 28:79-96.

Kalantzis, M. and Cope, B.. 2011. <u>The Work of Writing in the Age of Its Digital Reproducibility</u>. pp. 40-87 in *Rethinking Identity and Literacy Education in the 21<sup>st</sup> Century*, vol. 110: 1, edited by S. S. Abrams and J. Rowsell. New York: Teachers College Press.

Vojak, C., Kline, S., Cope, B., McCarthey, S., and Kalantzis, M. (2011). New Spaces and Old Places: An Analysis of Writing Assessment Software. *Computers and Composition* 28:97-111.

#### Books:

Cope, B., Kalantzis M., and Magee, L. (2011). *Towards a Semantic Web: Connecting Knowledge in Academic Research*. Cambridge UK: Woodhead Publishing.

Kalantzis, M. and Cope, B. (2012). Literacies. Cambridge UK: Cambridge University Press.

Kalantzis, M. and Cope, B. (2012). *New Learning: Elements of a Science of Education*. 2nd Ed. Cambridge UK: Cambridge University Press

## R305A090460

Adapterrex: Exploring the Learning Benefits of Erroneous Examples and Their Dynamic Adaptations Within the Context of Middle School Mathematics

Carnegie Mellon University

McLaren, Bruce

#### **Publications:**

Adams, D., McLaren B.M., Durkin, K., Mayer, R.E., Rittle-Johnson, B., Isotani, S., and Van Velsen, M. (2012). Erroneous Examples Versus Problem Solving: Can We Improve How Middle School Students Learn Decimals? In N.Miyakem, D. Peebles, and R.P. Coppers (Eds.), *Proceedings of the 34th Meeting of the Cognitive Science Society (CogSci 2012)*. (pp. 1260-1265). Sapporo, Japan: Cognitive Science Society.

Goguadze, G., Sosnovsky, S., Isotani, S., and McLaren, B.M. (2011). Evaluating A Bayesian Student Model Of Decimal Misconceptions. In M. Pechenizkiy, T. Calders, C. Conati, S. Ventura, C. Romero, and J. Stamper (Eds.), Proceedings of the *4th International Conference on Educational Data Mining (EDM 2011)*. (pp. 301-306). ISBN: 978-90-386-2537-9.

Goguadze, G., Sosnovsky, S., Isotani, S., and McLaren, B.M. (2011). Towards A Bayesian Student Model For Detecting Decimal Misconceptions. In: T. Hirashima et al. (Eds.), Proceedings of the 19th International Conference on Computers in Education (ICCE-2011). (pp. 34-41). Asia-Pacific Society for Computers in Education, Chiang Mai, Thailand.

Isotani, S., Adams, D., Mayer, R.E., Durkin, K., Rittle-Johnson, B., and McLaren, B.M. (2011). Can Erroneous Examples Help Middle-School Students Learn Decimals? In: C. Kloos, D. Gillet, R. C. Garcia, F. Wild and M. Wolpers (Eds.): Towards Ubiquitous Learning: *Sixth European Conference on Technology Enhanced Learning: (EC-TEL-2011)*. Lecture Notes in Computer Science 6964 (pp. 181-195). Springer Berlin / Heidelberg.

McLaren, B.M. and Isotani, S. (2011). When Is It Best To Learn With All Worked Examples? In G. Biswas, S. Bull, J. Kay, and A. Mitrovic (Eds.), *Proceedings of the 15th International Conference on Artificial Intelligence in Education (AIED-2011)*. Lecture Notes in Computer Science, 6738. (pp. 222-229). Berlin: Springer.

McLaren, B.M., Adams, D., Durkin, K., Goguadze, G. Mayer, R.E., Rittle-Johnson, B., Sosnovsky, S., Isotani, S., and Van Velsen, M. (2012). To Err Is Human, To Explain and Correct Is Divine: A Study Of Interactive Erroneous Examples With Middle School Math Students. In: A. Ravenscroft, S. Lindstaedt, C. Delgado Kloos, and D. Hernándex-Leo (Eds.), *Proceedings of EC-TEL 2012: Seventh European Conference on Technology Enhanced Learning*, LNCS 7563 (pp. 222-235).

Isotani, S., McLaren, B.M., and Altman, M. (2010). Towards Intelligent Tutoring With Erroneous Examples: A Taxonomy Of Decimal Misconceptions. In V. Aleven, J. Kay, J. Mostow (Eds.), *Proceedings of the 10th International Conference on Intelligent Tutoring Systems (ITS-2010)*. Lecture Notes in Computer Science, 6094 (pp. 346-348). Berlin: Springer.

## R305A090476

STEPS to Literacy: An Integrated Digital Writing Space for English Language Learners
Columbia University, Teachers College
Kleifgen, JoAnne
Charles Kinzer

**Publications:** 

## R305A090519

## Learning by Teaching Synthetic Student: Using SimStudent to Study the Effect of Tutor Learning

Carnegie Mellon University

Matsuda, Noboru

Kenneth R. Koedinger, William W. Cohen (Carnegie Mellon University), Gabriel Stylianides (University of Pittsburgh)

#### **Publications:**

Matsuda, N., Yarzebinski, E., Keiser, V., Raizada, R., Stylianides, G., Cohen, W.W., et al. (2012). Motivational Factors For Learning By Teaching: The Effect Of A Competitive Game Show In A Virtual Peer-Learning Environment. In S. Cerri and W. Clancey (Eds.), *Proceedings of International Conference on Intelligent Tutoring Systems* (pp. 101-111). Heidelberg, Berlin: Springer-Verlag.

Matsuda, N., Keiser, V., Raizada, R., Yarzebinski, E., Watson, S., Stylianides, G.J., et al. (2012). Studying The Effect Of Tutor Learning Using A Teachable Agent That Asks The Student Tutor For Explanations. In M. Sugimoto, V. Aleven, Y. S. Chee and B. F. Manjon (Eds.), *Proceedings of the International Conference on Digital Game and Intelligent Toy Enhanced Learning (DIGITEL 2012)* (pp. 25-32). Los Alamitos, CA: IEEE Computer Society.

Matsuda, N., Keiser, V., Raizada, R., Tu, A., Stylianides, G., Cohen, W.W., et al. (2010). Learning By Teaching Simstudent: Technical Accomplishments and An Initial Use With Students. In V. Aleven, J. Kay and J. Mostow (Eds.), *Proceedings of the International Conference on Intelligent Tutoring Systems* (pp. 317-326). Heidelberg, Berlin: Springer.

Matsuda, N., Cohen, W.W., Koedinger, K.R., and Stylianides, G. (2010). Learning To Solve Algebraic Equations By Teaching A Computer Agent. In M.F. Pinto and T.F. Kawasaki (Eds.), *Proceedings of the Conference of the International Group for the Psychology of Mathematics Education* (Vol. 2, pp. 69).

## 2010

## R305A100105

A Technology-Rich Teacher Professional Development Intervention that Supports
Content-Based Curriculum Development for English Language Learners
Educational Testing Service

Burstein, Jill

#### **Publications:**

Burstein, J., Sabatini, J., and Shore, J. (in press). Developing NLP Applications for Educational Problem Spaces, In R. Mitkov (Editor), *Oxford Handbook of Computational Linguistics*.

Burstein, J., Sabatini, J., Shore, J., Moulder, B., and Lentini, J. (2013). A User Study: Technology to Increase Teachers' Linguistic Awareness to Improve Instructional Language Support for English Language Learners. *NLP4ITA* 2013, 1.

## R305A100110

<u>Developing and Evaluating a Technology-Based Fractions Intervention Program for Low-</u> Achieving and At-Risk Students

Vanderbilt University Hasselbring, Ted

## **Publications:**

Mendiburo, M and Biswas, G. (2011). Virtual Manipulatives In A Computer-Based Learning Environment: How Experimental Data Informs The Design Of Future Systems. In G. Biswas, S. Bull, J. Kay, A. Mitrovic (Eds.), *Artificial Intelligence in Education: 15th International Conference* (pp. 510-512). Berlin: Springer-Verlag.

Mendiburo, M., Biswas, G., and Hasselbring, T. (2012). Design-Based Research In Practice: A Technology-Based Classroom Experiment That Explores How Students Use Virtual Manipulatives To Order Groups Of Fractions. In van Aalst, J., Thompson, K., Jacobson, M.J., and Reimann, P. (Eds.), *The Future of Learning: Proceedings of the 10th International Conference of the Learning Sciences (ICLS 2012) – Volume 2, Short Papers, Symposia, and Abstracts* (pp. 573-574). International Society of the Learning Sciences: Sydney, NSW, Australia.

Mendiburo, M., Sulcer, B., Biswas, G., and Hasselbring, T. (2012). Virtual Manipulatives, Formative Feedback, and Fractions. In S. Cerri, W. Clancey, G. Papadourakis, and K. Panourgia (Eds.), *Intelligent Tutoring Systems: 11th International Conference* (pp. 716-717). ITS 2012: Chania, Crete, Greece.

<u>Mathemantics Preschool --> 3: Development and Evaluation of Mathematics Software for Children from Preschool to Grade 3</u>

Columbia University, Teachers College

Ginsburg, Herbert

Paul Horwitz (Educational Network Services)

**Publications:** 

## R305A100782

<u>Habitat Tracker: Learning About Scientific Inquiry Through Digital Journaling at</u> Wildlife Centers

Florida State University

Marty, Paul

Ian Douglas, Sherry Southerland, Victor Sampson

#### **Publications:**

Alemanne, N. D., Sampson, V., Marty, P. F., Kazmer, M. M., Douglas, I., Clark, A., ... and Mendenhall, A. (2012). Habitat Tracker: Engaging students with scientific inquiry through technology and curriculum support. *Proceedings of the American Society for Information Science and Technology*, 49(1), 1-4.

Marty, P. F., Alemanne, N. D., Mendenhall, A., Maurya, M., Southerland, S. A., Sampson, V., ... and Schellinger, J. (2013). Scientific inquiry, digital literacy, and mobile computing in informal learning environments. *Learning, Media and Technology*, (ahead-of-print), 1-22.

Marty, P. F., Douglas, I., Southerland, S. A., Sampson, V., Alemanne, N. D., Clark, A., ... and Yu, C. (2012, February). Habitat tracker: learning about scientific inquiry through digital journaling in wildlife centers. In *Proceedings of the 2012 iConference* (pp. 560-562). ACM.

## R305A100875

<u>DeepTutor: An Intelligent Tutoring System Based on Deep Language and Discourse</u> Processing and Advanced Tutoring Strategies

University of Memphis

Rus, Vasile

Related IES Project: <u>Center for the Study of Adult Literacy (CSAL)</u>: <u>Developing Instructional Approaches Suited to the Cognitive and Motivational Needs for Struggling Adults</u> (R305C120001)

#### **Publications:**

Graesser, A.C., and McNamara, D.S. (2011). Computational Analyses Of Multilevel Discourse Comprehension. *Topics In Cognitive Science*, *3*(2): 371-398.

Kopp, K.J., Britt, M., Millis, K., and Graesser, A.C. (2012). Improving the Efficiency of Dialogue in Tutoring. *Learning and Instruction*, 22(5): 320-330.

Lintean, M. and Rus, V. (2011). Dissimilarity Kernels for Paraphrase Identification. In *Proceedings of the 24th International Florida Artificial Intelligence Research Society Conference*. Palm Beach, FL.

Lintean, M. and Rus, V. (in press). Measuring Semantic Similarity in Short Texts through Greedy Pairing and Word Semantics. *Proceedings of the 25th International Florida Artificial Intelligence Research Society Conference*. Marco Island, FL.

Lintean, M., Rus, V., Cai, Z., Witherspoon-Johnson, A., Graesser, A.C., and Azevedo, R. (2012). Computational aspects of the intelligent tutoring system MetaTutor. In P. McCarthy and C. Boonthum-Denecke (Eds.), *Applied natural language processing: Identification, investigation, and resolution* (pp. 247-260). Hershey, PA: IGI Global.

Mavrikis, M., D'Mello, S. K., Porayska-Pomsta, K., Cocea, M., and Graesser, A.C. (in press). Modeling Affect By Mining Students Interactions With Learning Environments. In Romero et al. (Eds.), *Handbook of Educational Data Mining*. CRC Press.

McNamara, D.S., Jackson, G.T., and Graesser, A.C. (In Press). Intelligent Tutoring and Games (Itag). In Y.K. Baek (Ed.), *Gaming For Classroom-Based Learning: Digital Role-Playing As A Motivator Of Study*. IGI Global.

Millis, K., Forsyth, C., Butler, H., Wallace, P., Graesser, A.C., and Halpern, D. (2011). Operation ARIES! A serious game for teaching scientific inquiry. In M. Ma, A. Oikonomou, and J. Lakhmi (Eds.), *Serious games and edutainment applications* (pp.169-196). London: Springer-Verlag.

Rus, V. and Niraula, N. B. (2012). Automated Detection of Local Coherence in Short Essays Based on Centering Theory, *CICLing 2012*: 450-461.

Rus, V., and Lintean, M. (in press). A comparison of Greedy and Optimal Assessment of Natural Language Student Input Using Word-to-Word Similarity Metrics. *Proceedings of the 11th International Conference on Intelligent Tutoring Systems*. Chania, Crete, Greece.

Rus, V., Lintean, M., Graesser, A.C., and McNamara, D.S. (2012). Text-To-Text Similarity Of Statements. In P. McCarthy and C. Boonthum-Denecke (Eds.), *Applied Natural Language Processing: Identification, Investigation, and Resolution* (pp. 110-121). Hershey, PA: IGI Global.

Storey, J. K., Kopp, K.J., Wiemer, K., Chipman, P., and Graesser, A.C. (in press). Using AutoTutor to teach scientific critical thinking skills. *Behavior Research Methods*.

Sullins, J., Craig, S.D., and Graesser, A.C. (in press). The Influence Of Modality Of Deep Reasoning Questions. *International Journal of Learning Technology*, *5*: 378-387.

## 2011

## R305A110021

**Voyage to Galapogos: Development of a Differentiated Assistance Model in an Inquiry Learning Environment** 

WestEd Timms, Michael Doug Weihnacht

<u>Creating Compositions Using a Technology-Based Writing Tool: Supporting Students With Universal Design for Learning</u>

CAST, Inc. Hall, Tracey Steve Graham (Vanderbilt University)

**Publications:** 

## R305A110782

Explanation and Prediction Increasing Gains and Metacognition (EPIGAME)

Vanderbilt University

Clark, Douglas

Publications:

## 2012 R305A120047

**Cyber-enabled Tangible Molecular Models for High School** 

WestEd

Davenport, Jodi

Arthur Olson (The Scripps Research Institute)

**Publications:** 

## R305A120125

An Efficacy Study of Online Mathematics Homework Support: An Evaluation of the ASSISTments Formative Assessment and Tutoring Platform

SRI International Roschelle, Jeremy

Neil Heffernan (Worcester Polytechnic Institute)

Related IES Projects: <u>Using Web-based Cognitive Assessment Systems for Predicting Student Performance on State Exams</u> (R305K030140) and <u>Making Longitudinal Web-Based Assessments Give Cognitively Diagnostic Reports to Teachers, Parents, and Students While Employing Mastery Learning (R305A070440)</u>

## **Intelligent Scaffolding for Peer Reviews of Writing**

University of Pittsburgh Litman, Diane

Publications:

## R305A120639

**Burst: Reading Efficacy Study** 

Wireless Generation Berger, Larry

**Publications:** 

## 2013

## R305A130030

**Automating the Measurement and Assessment of Classroom Discourse** 

Board of Regents of the University of Wisconsin

Nystrand, Martin

Arthur Graesser (University of Memphis), Sidney D'Mello (University of Notre Dame), Andrew Olney (University of Memphis), Sean Kelly (University of Pittsburgh)

**Publications:** 

## R305A130124

Exploring the Educational Game Landscape through Focused Studies and Ecological Interventions

Arizona State University McNamara, Danielle Tanner Jackson

**Publications:** 

## R305A130195

## GlobalEd 2

University of Connecticut

Brown, Scott

Kimberly Lawless (University of Illinois at Chicago)

Related IES Projects: Expanding the Science and Literacy Curricular Space: The GlobalEd II Project (R305A080622)

**Publications:** 

## R305A130400

Efficacy of an Integrated Digital Elementary School Mathematics Curriculum SRI International Roschelle, Jeremy Nicole Shechtman, Mingyu Feng, Corinne Singleton

Publications:

## R305A130517

Making Individualized Literacy Instruction Available to All Teachers: Adapting the Assessment to Instruction (A2i) Software for Multiple Real-World Contexts

Arizona State University

Connor, Carol

Related IES Projects: Child Instruction Interactions in Early Reading: Examining Causal Effects of Individualized Instruction (R305H040013) and Child-Instruction Interactions in Reading: Examining Causal Effects of Individualized Instruction in Second and Third Grade (R305B070074)

## EFFECTIVE TEACHERS AND EFFECTIVE TEACHING

## 2012

## R305A120233

An Exploration of Novice Teachers' Core Competencies: Impacts on Student Achievement and Effectiveness of Preparation

University of Denver Seidel, Kent Kathy Green

**Publications:** 

## R305A120265

**Improving Teachers' Monitoring of Learning** 

Boise State University
Thiede, Keith
Jonathan Brendefur, Jennifer Snow, Richard Osguthorpe

**Publications:** 

## R305A120553

<u>Updating Middle School Mathematics Diagnostics Teacher Assessments in Mathematics</u> and Science (DTAMS)

University of Louisville Bush, William S. Susan A. Peters

**Publications:** 

## R305A120634

<u>Dialogic Teaching: Professional Development in Classroom Discussion to Improve Students' Argument Literacy</u>

Ohio State University Wilkinson, Ian Alina Reznitskaya

Related IES Projects: <u>Group Discussions as a Mechanism for Promoting High-Level</u> Comprehension of Text (R305G020075)

**Replicating the CGI Experiment in Diverse Environments** 

Florida State University Schoen, Robert Walter Secada and Juli Dixon

Publications:

## 2013

## R305A130058

**Exploring Effective Reading Comprehension Instruction: Classroom Practice, Teacher, and Student Characteristics** 

Arizona State University
Connor, Carol
Joanne Carlisle (University of Michigan)

## **ENGLISH LEARNERS**

## 2010

## R305A100272

Language and Literacy Abilities in Spanish Language Speaking Children

University of Houston Branum-Martin, Lee

Related IES Projects: <u>Cross-Classified Structural Equations Model: Development of an OpenMX Module and its Application to Multiyear Assessment and Intervention Data in Literacy Research</u> (R305D090024) and <u>The Roles of Instruction and Component Skills in Reading Achievement</u> (R305A120785)

## **Publications:**

Branum-Martin, L. (2013). Multilevel Modeling: Practical Examples to Illustrate a Special Case of SEM. In Y. Petscher, C. Schatschneider, and D. Compton (Eds.), *Applied Quantitative Analysis in Education and the Social Sciences*.(pp. 95-124). Taylor and Francis.

## R305A100482

The Iterative Development of Modules to Support Teachers' Engagement in Exploring Language and Meaning in Text with English Language Learners

University of Michigan Schleppegrell, Mary Annemarie Palincsar

#### **Publications:**

Fang, Z., Schleppegrell, M.J. and Moore, J. (in press). The Linguistic Challenges of Learning Across Academic Dsciplines. In C.A. Stone and E.R. Silliman (Eds.), *Handbook of Language and Literacy: Development and Disorders (2<sup>nd</sup> ed.)*. New York: Guilford Press.

Schleppegrell, M.J. (2012). Academic Language in Teaching and Learning: Introduction to the Special Issue. *The Elementary School Journal*, *112(3)*: 409-418.

Schleppegrell, M.J. (2013). The Role Of Metalanguage In Supporting Academic Language Development. *Language Learning*, 63(Suppl 1): 153-170.

## R305A100583

**An Efficacy Study of Project GLAD** 

Education Northwest Deussen, Theresa

Project Website: http://projectgladstudy.educationnorthwest.org

<u>Validating Universal Screening and Progress Monitoring Instruments for Use with ELLs in Response-to-Intervention Models</u>

University of Wisconsin, Madison Albers, Craig

#### **Publications:**

Albers, C.A., and Mission, P.L. (2013). Universal Screening Within ELL Populations. In R.J. Kettler, T.A. Glover, C.A. Albers, and K.A. Feeney-Kettler (Eds). *Universal screening of students: Best practices for identification, implementation, and interpretation.* Washington, DC: American Psychological Association.

Albers, C.A., Mission, P.L., and Bice, B.J. (2013). Considering Diverse Learner Characteristics In Problem-Solving Assessment. In R. Brown-Chidsey and K. andren (Eds.), *Problem-solving based assessment for educational intervention – 2nd ed.* (pp. 101-122). New York: Guilford.

## R305A100670

<u>Improving the Teaching and Learning of English Language Learners: The Instructional Conversational Model</u>

University of Georgia Research Foundation, Inc. Portes, Pedro

Karen Samuelsen

**Publications:** 

## R305A100724

Developing a Formative Assessment of Academic Reading Comprehension for English Language Learners: A Tool to Improve Teaching and Learning

Education Testing Service Wolf, Mikyung

**Publications:** 

## R305A100862

Language in Math University of Miami

Secada, Walter

Mary Avalos (University of Miami)

## **Publications:**

Secada, W.G., Zisselsberger, M., Langer-Osuna, J. and Avalos, M.A. (2011). Developing Teachers' Repertoires for Language in the Mathematics Classroom. In M. Setati, T. Nkambule, and L. Goosen (Eds.), *Proceedings of the ICMI Study Mathematics and Language Diversity*. Sao Paulo, Brazil.

## 2011

## R305A110076

## **Mathematics Coaching Supporting English Language Learners**

Education Development Center, Inc.

Driscoll, Mark Johannah Nikula

**Publications:** 

## R305A110122

## **English Learners and Science Tests**

Technical Education Research Centers, Inc. Noble, Tracy Ann Rosebery

**Publications:** 

## R305A110142

<u>Developing a Cross-Age Peer Tutoring Program to Promote the Vocabulary and Comprehension of English Learners</u>

University of Maryland, College Park Silverman, Rebecca Melinda Martin-Beltran and Megan Peercy

**Publications:** 

## R305A110176

Impact of the WRITE Program on English Learner Achievement and Teacher Instructional Practice

WestEd

Haas, Eric

Jamal Abedi (University of California, Davis), Chris Faltis (University of California, Davis)

Project Website: www.wested.org/WRITEStudy

Efficacy of Supplemental Early Vocabulary Connections Instruction for English Language Learners

Washington Research Institute

Vadasy, Patricia

Ron Nelson (University of Nebraska Lincoln)

Related IES Projects: <u>Effects of a Supplementary Vocabulary Intervention for Students With</u> Limited English Proficiency (R305A070045)

Publications:

#### R305A110512

Reclassifying and Not Reclassifying English Learners as Fluent English Proficient: Access and Achievement

Regents of University of California, Santa Cruz Estrada, Peggy

**Publications:** 

## 2012

## R305A120290

<u>Developing Consultation and Collaboration Skills: ESL and Classroom Teachers Working Together with Students and Families</u>

**Duke University** 

Babinski, Leslie

Steven Knotek (University of North Carolina) and Steve Amendum (North Carolina State)

Publications:

## R305A120593

Improving Reading Comprehension of Middle Grades English Language Learners by Combining Structure Strategy with Web-Based Adaptive Tutoring for EL Learners (SWELL)

Pennsylvania State University

Wijekumar, Kausalai

Bonnie J. Meyer, Pui-Wa Lei (Pennsylvania State University), Ana I. Schwartz (University of Texas at El Paso)

Related IES Projects: <u>Intelligent Tutoring Using The Structure Strategy To Improve Reading Comprehension Of Middle School Students</u> (R305G030072) and <u>Efficacy and Replication</u>

Research on the Intelligent Tutoring System for the Structure Strategy—Rural and Suburban Schools Grades 4, 5, 7, and 8 (R305A080133)

## 2013

## R305A130223

<u>A Comprehensive Research-Based Computer Assessment and Accommodation System for ELL Students</u>

Regents of the University of California Abedi, Jamal

**Publications:** 

## R305A130460

BLOOM: Facilitating Language and Literacy Outcomes for English Language Leaners
Florida State University
Jackson, Carla

**Publications:** 

## R305A130610

First Grade, Second Language: Uniting Science Knowledge and Literacy Development for English Learners

Regents of the University of California

Billman, Alison

P. David Pearson and Jacqueline Barber (University of California, Berkeley)

## EVALUATION OF STATE AND LOCAL EDUCATION PROGRAMS AND POLICIES

## 2009

## R305E090003

**Evaluation of Core Knowledge Charter Schools in Colorado** 

University of Virginia

Grissmer, David

Thomas White (University of Virginia) and Geoffrey Borman (University of Wisconsin)

**Publications:** 

## R305E090005

<u>A Proposal to Measure the Impact of Indiana's System of Diagnostic Assessments on</u> Student Achievement Outcomes

Learning Point Associates

Miller, Shazia

Spyros Konstantopoulos (Michigan State University)

**Publications:** 

## R305E090009

**Evaluating the Effectiveness of Tennessee's Voluntary Pre-K Program** 

Vanderbilt University

Lipsey, Mark

Bobbi Lussier (Tennessee Department of Education) and Dale C. Farran (Vanderbilt University)

**Publications:** 

## R305E090010

**Evaluation of the New Jersey Preschool Expansion (NJPE) Program** 

MPR

Ross, Christine

## R305E090019

**Evaluation of Ninth Grade Academies in Broward County Public Schools**MDRC
Black, Alison

**Publications:** 

## 2010

## R305E100008

The Impact of the Michigan Merit Curriculum and Michigan Promise Scholarship on Student Outcomes

University of Michigan Jacob, Brian A.

**Publications:** 

## R305E100013

<u>Intended and Unintended Consequences of State High-Stakes Testing: Evidence from Standards-Based Reform in Massachusetts</u>

President and Fellows of Harvard College, Graduate School of Education Murnane, Richard John Willet

Related IES Projects: <u>The Consequences for High School Students of Failing State Exit Exams:</u> Evidence from Massachusetts (R305A080127)

#### **Publications:**

Papay, J.P., Willett, J.B., and Murnane, R.J. (2011). Extending the Regression-Discontinuity Approach to Multiple Assignment Variables. *Journal of Econometrics*, 161(2): 203-207.

Papay, J.P., Willett, J.B., and Murnane, R.J. (2011). High-School Exit Examinations and The Schooling Decisions Of Teenagers: A Multi-Dimensional Regression-Discontinuity Approach. National Bureau of Economic Research Working Paper #17112.

Papay, J.P., Willett, J.B., and Murnane, R.J. (2011). How Performance Information Affects Human Capital Investment Decisions: The Impact Of Test-Score Labels On Educational Outcomes. National Bureau of Economic Research Working Paper #17120.

## R305E100030

**Evaluation of the Effectiveness of the Ohio Department of Education's Literacy Core Curriculum for Early Childhood Educators** 

Ohio State University Research Foundation Piasta, Shayne Laura Justice

**Publications:** 

## R305E100043

**Middle School Intervention Project (MSIP)** 

University of Oregon Baker, Scott Hank Fien and Deanne Crone (University of Oregon)

Project Website: <a href="http://ctl.uoregon.edu/content/msip-home">http://ctl.uoregon.edu/content/msip-home</a>

**Publications:** 

## 2011

## R305E110019

**Gifted Education Program Participation and Program Impacts** 

National Bureau of Economic Research Card, David Laura Giuliano (University of Miami)

Publications:

## 2012

## R305E120003

The Effect of Dual-Language Immersion on Student Achievement in the Portland Public Schools

**RAND Corporation** 

Steele, Jennifer

Robert Owen Slater (American Councils for International Education)

## R305E120006

**Evaluation of the Long-Term Effects of Retention under New York City's Student Promotion Policy** 

RAND Corporation Mariano, Louis Francisco Martorell

**Publications:** 

## R305E120010

Assessment of the Florida College and Career Readiness Initiative CNA Corp.

Mokher, Christine Lou Jacobson

**Publications:** 

## 2013

## R305E130009

Beyond Triage: A Randomized Experiment in Sustained Pre-College Advising
Stanford University
Bettinger, Eric
Anthony Antonio

# IMPROVING EDUCATION SYSTEMS: POLICIES, ORGANIZATION, MANAGEMENT, AND LEADERSHIP

## 2011

## R305A110670

Malleable Factors that Influence Outcomes of English Language Learners

Board of Trustees of the Leland Stanford Junior University

Reardon, Sean

Kenji Hakuta, Milbrey McLaughlin, Suzanne Donovan (Strategic Education Research Partnership), and Ritu Khanna (School District)

**Publications:** 

## 2012

## R305A120136

The Educational Benefits of Attending High-Performing High Schools

University of Chicago Allensworth, Elaine Marisa de la Torre

**Publications:** 

## R305A120144

A Meta-Analysis of Parent Involvement Interventions and Family-School Partnerships'
Effects on Student Outcomes

Board of Regents, University of Nebraska

Sheridan, Susan

Tasha Beretvas (University of Texas at Austin) and Elizabeth Moorman (University of Nebraska-Lincoln)

**Publications:** 

## R305A120269

Why are Some Charter Schools More Effective than Others? Econometric Methods and Empirical Evidence from Massachusetts, Michigan, and Texas

National Bureau of Economic Research

Angrist, Joshua

Susan Dynarski (NBER/University of Michigan), Parag Pathak (NBER/ Massachusetts Institute of Technology), and Brian Jacob (NBER/University of Michigan)

## **Misattribution of Teacher Value-Added**

American Institutes for Research Ozek, Umut Zeyu Xu

**Publications:** 

## R305A120466

## **Doubling Up? The Impact of Remedial Algebra on Students' Long-Run Outcomes**

President and Fellows of Harvard College Goodman, Joshua

## **Publications:**

Cortes, K., Nomi, T., and Goodman, J. (2013). <u>A Double Dose of Algebra: Intensive Math Instruction has Long-Term Benefits</u>. *Education Next*, *13*(1):70-76.

## R305A120526

## **Early Truancy Prevention Project**

CYBER Learning Corporation Cook, Philip Kenneth A. Dodge, Amy B. Schulting

**Publications:** 

## R305A120640

Curricular Reform and Classroom Peer Ability: School-Specific and Citywide Effects

University of Chicago Nomi, Takako Steve Raudenbush

**Publications:** 

## R305A120677

Getting Students to the Finish Line: An Efficacy Study of a Ninth Grade Early Warning Indicator Intervention

Johns Hopkins University Balfanz, Robert Marcia Davis

The Influence of School Leadership on Instruction and Student Learning: A Longitudinal Examination of Leadership in Chicago Public Schools

University of Chicago Allensworth, Elaine James Sebastian

Publications:

## 2013

## R305A130044

<u>Testing the Promise: A Randomized Trial of a Promise College Scholarship for Urban Public School Students</u>

The Administrators of the Tulane Educational Fund Harris, Douglas N.
Bradley Carl (University of Wisconsin-Madison)

## INTERVENTIONS FOR STRUGGLING ADOLESCENT AND ADULT READERS AND WRITERS

## 2007

## R305B070016

Content-Rich Vocabulary Development to Improve Reading Achievement of Struggling Adolescent Readers
Stanford University

Goldenberg, Claude

Project Website: Word Intelligence TM: Developing Academic and Content Vocabulary

**Publications:** 

## R305B070129

<u>Improving Adults' Reading Outcomes with Strategic Tutoring and Content Enhancement Routines</u>

University of Kansas Mellard, Daryl

Project Website: http://das.kucrl.org/job-corps

#### **Publications:**

Mellard, D.F., and Woods, K.L. (2012). Literacy and Numeracy Among Job Corps Students: Opportunities For Targeted Academic Infusion In CTE. *Career and Technical Education Research*, *37*(2).

Mellard, D.F., Woods, K.L., and Desa, D.M (2012). <u>An Oral Reading Fluency Assessment For Young Adult Career and Technical Education Students</u>. *Learning Disabilities Research and Practice*, *27*(3): 125-135.

Mellard, D.F., Woods, K.L., and Desa, D.M. (2012). Literacy and Numeracy Among Job Corps Students: Opportunities For Targeted Academic Infusion In CTE. *Career and Technical Education Research*, *37*(2): 141-156.

Mellard, D. F., Woods, K. L., Desa, Z. D. M., and Vuyk, M. A. (2013). Underlying Reading-Related Skills and Abilities Among Adult Learners. *Journal of Learning Disabilities*. Published online before print August 20, 2013, doi: 10.1177/0022219413500813.

## R305B070324

The Reading Edge: Development and Evaluation of a High School Cooperative

Success for All Foundation Madden, Nancy A.

Project Website: <a href="http://www.successforall.org/Middle-High/Powerful-Instruction/The-Reading-Edge-High-School/">http://www.successforall.org/Middle-High/Powerful-Instruction/The-Reading-Edge-High-School/</a>

#### **Publications:**

Slavin, R.E., Madden, N.A., Chambers, B., and Haxby, B. (2009). 2 Million children: Success for all (2nd ed.). Thousand Oaks, CA US: Corwin Press.

## 2008

## R305A080608

<u>Project Collaborative Strategic Reading (CSR): Interventions for Struggling Adolescent and Adult Readers and Writers</u>

University of Texas, Austin Vaughn, Sharon

#### Curriculum Developed:

Klinger, J.K., Vaughn, S., Boardman, A.G., and Swanson, E.A. (2012). <u>Now We Get It! Boosting</u> <u>Comprehension With Collaborative Strategic Reading</u>

#### **Publications:**

Klingner, J.K., and Boardman, A.G. (2011). Addressing The 'Research Gap' In Special Education Through Mixed Methods. *Learning Disability Quarterly*, *34*(3): 208-218.

Vaughn, S., Klingner, J.K., Swanson, E.A., and Boardman, A.G. (2011). <u>Efficacy of Collaborative Strategic Reading with Middle School Students</u>, *American Education Research Journal*, 48(4): 938-964.

Vaughn, S., Roberts, G., Klingner, J.K., Swanson, E.A., Boardman, A.G., Stillman-Spisak, S.J., Mohammed, S.S., and Leroux, A.J. (2013). Collaborative Strategic Reading: Findings from Experienced Implementers. *Journal of Research on Educational Effectiveness*, 6: 137-163.

## R305A080631

## **Increasing Opportunities-to-Learn in Urban Middle Schools**

President and Fellows of Harvard College, Graduate School of Education Lesaux, Nonie

#### **Publications:**

Kieffer, M.J., and Lesaux, N.K. (2012). <u>Direct and Indirect Roles of Morphological Awareness in the English Reading Comprehension of Native English, Spanish, Filipino, and Vietnamese Speakers</u>. *Language Learning*, 62(4): 1170-1204.

Gamez, P., and Lesaux, N.K. (2012). <u>The Relation Between Exposure to Sophisticated and Complex Language and Early-Adolescent English-Only and Language-Minority Learners' Vocabulary</u>. *Child Development*, 83(4): 1316-1331.

Lesaux, N.K., Harris, J.R., and Sloane, P. (2012). <u>Adolescents' Motivation in the Context of an Academic Vocabulary Intervention in Urban Middle School Classrooms</u>. *Journal of Adolescent and Adult Literacy*, *56*(3): 231-240.

Lesaux, N.K., Kieffer, M.J., Kelley, J.G., and Harris, J.R. (accepted). Effects of Academic Vocabulary Instruction for Linguistically Diverse Adolescents: Evidence from a Randomized Field Trial. *American Educational Research Journal*.

## 2009

## R305A090153

<u>Disciplinary Writing Instruction for the Social Studies Classroom: A Path to Adolescent</u> Literacy

University of Maryland, College Park De La Paz, Susan Chauncey Monte-Sano and Mark Felton

**Publications:** 

## R305A090187

<u>Strengthening Content Literacy for Struggling High School Readers: Coordinated Lessons and Support Systems for Subject Matter Teachers</u>

Johns Hopkins University McPartland, James Marcia Davis

**Publications:** 

#### R305A090227

The ESTRELLAS Project: Electronic Supported Text Research for English Language Learner Academic Success

University of Oregon Anderson-Inman, Lynne

Project Website: <a href="http://estrellas.uoregon.edu/">http://estrellas.uoregon.edu/</a>

## **Word Generation: An Efficacy Trial**

President and Fellows of Harvard College, Graduate School of Education Snow, Catherine

Project Website: http://wg.serpmedia.org/IES.html

Related IES Projects: <u>Catalyzing Comprehension Through Discussion and Debate</u> (R305F100026)

#### **Publications:**

Lawrence, J., Capotosto, L., Branum-Martin, L., White, C., and Snow, C. (2012). <u>Language Proficiency</u>, <u>Home Language Status</u>, and <u>English Vocabulary Development: A Longitudinal Follow-Up of the Word Generation Program</u>. *Bilingualism: Language and Cognition*, *15*(3): 437-451

## R305A090608

Assessing Online Reading Comprehension: The ORCA Project
University of Connecticut
Leu, Donald

Related IES Projects: <u>Developing Internet Comprehension Strategies Among Adolescent Students At Risk to Become Dropouts</u> (R305G050154)

## **Publications:**

Leu, D.J. and Forzani, E. (2013). New literacies in a Web 2.0, 3.0, 4.0, ... $\infty$  world. Research in the Schools, 19(1): 75-81.

Leu, D.J., Forzani, E., and Kennedy, C. (in press). Providing Classroom Leadership In New Literacies: Preparing Students For Their Future. In S.B. Wepner, D.S. Strickland, and D. Quatroche (Eds.). *The Administration and Supervision of Reading Programs*, 5<sup>th</sup> Edition. New York: Teachers College Press.

Leu, D.J., Forzani, E., Burlingame, C., Kulikowich, J., Sedransk, N., Coiro, J., and Kennedy, C. (2013). The New Literacies Of Online Research and Comprehension: Assessing and Preparing Students For The 21<sup>st</sup> Century With Common Core State Standards. In S.B. Neuman and L.B. Gambrell (Eds.), C. Massey (Assoc. Ed.). *Reading Instruction In The Age Of Common Core Standards*. Newark: International Reading Association.

Leu, D.J., Kinzer, C.K., Coiro, J., Castek, J., and Henry, L.S. (2013). New Literacies: A Dual Level Theory Of The Changing Nature Of Literacy, Instruction, and Assessment. In D.E. Alvermann, N.J. Unrau, and R.B. Rudell (Eds.). *Theoretical models and processes of reading, 6<sup>th</sup> edition,* pp. 1150-1181. Newark: International Reading Association.

Leu, D.J., Everett-Cacopardo, H., Zawilinksi, L., McVerry, J.G., and O'Byrne, W.I. (2012). The New Literacies Of Online Reding Comprehension. In C.A. Chapelle (Ed.). *The Encyclopedia of Applied Linguistics*. (pp. 4239-4247). Oxford: Wiley-Blackwell.

Leu, D.J., McVerry, J.G., O'Byrne, W.I., Kiili, C., Zawilinski, L., Everett-Cacopardo, H., Kennedy, C., and Forzani, E. (2011). The New Literacies Of Online Reading Comprehension: Expanding The Literacy and Learning Curriculum. *Journal of Adolescent and Adult Literacy*, *55*(1): 5-14.

Assessment of Comprehension in Older Struggling Readers

Boston University Waters, Gloria

Related IES Projects: <u>Assessment of Comprehension Skills in Older Struggling Readers</u> (R305G050083)

**Publications:** 

## R305A100301

## **Measuring Reading Progress in Struggling Adolescents**

Florida State University Foorman, Barbara

#### **Publications:**

Foorman, B. R., and Petscher, Y. (2010). Development Of Spelling and Differential Relations To Text Reading In Grades 3-12. *Assessment For Effective Intervention*, *36*(1): 7-20.

Foorman, B., and Wanzek, J. (in press). Classroom Reading Instruction For All Students. In S.R. Jimerson, M.K. Burns, and A.M. VanDerHeyden (Eds.), *The Handbook of Response to Intervention: The Science and Practice of Multi-Tiered Systems of Support*. New York, NY: Springer Science, Inc.

Foorman, B.R., Petscher, Y., and Bishop, M.D. (2012). <u>The Incremental Variance of Morphological Knowledge to Reading Comprehension in Grades 3-10 beyond Prior Reading Comprehension, Spelling, and Text Reading Efficiency</u>. *Learning and Individual Differences*, 22(6): 792-798.

Petscher, Y., Kim, Y.S. (2011). <u>Efficiency of Predicting Risk in Word Reading Using Fewer, Easier Letters. Assessment for Effective Intervention</u>, 37(1): 17-25.

Petscher, Y., Kim, Y.S., and Foorman, B.R. (2011). <u>The Importance of Predictive Power in Early Screening Assessments: Implications for Placement in the Response to Intervention Framework</u>. *Assessment for Effective Intervention*, *36*(3): 158-166.

## MATHEMATICS AND SCIENCE EDUCATION

## 2003

## R305K030140

<u>Using Web-Based Cognitive Assessment Systems for Predicting Student Performance on State Exams</u>

Carnegie Mellon University Koedinger, Kenneth

Project Website: http://www.assistment.org/

Related IES Projects: <u>Making Longitudinal Web-Based Assessments Give Cognitively Diagnostic Reports to Teachers, Parents, and Students While Employing Mastery Learning</u> (R305A070440) and <u>An Efficacy Study of Online Mathematics Homework Support: An Evaluation of the ASSISTments Formative Assessment and Tutoring Platform (R305A120125)</u>

## **Publications:**

Ayers, E., and Junker, B. (2008). <u>IRT Modeling of Tutor Performance to Predict End-Of-Year Exam Scores</u>. *Educational and Psychological Measurement, 68*(6): 972–987.

Ayers, E., and Junker, B.W. (2006). Do Skills Combine Additively to Predict Task Difficulty in Eighth Grade Mathematics? In J. Beck, E. Aimeur and T. Barnes (Eds.), *Educational Data Mining: Papers From the 2006 AAAI Workshop* (pp.14–20). Menlo Park, CA: AAAI Press.

Anozie, N.O., and Junker, B.W. (2006). Predicting End-Of-Year Accountability Assessment Scores From Monthly Student Records in an Online Tutoring System. In J. Beck, E. Aimeur and T. Barnes (Eds.), *Educational Data Mining: Papers From the 2006 AAAI Workshop* (pp.1–6). Menlo Park, CA: AAAI Press.

Baker, R., Walonoski, J., Heffernan, T., Roll, I., Corbett, A., and Koedinger, K. (2007). Why Students Engage in Gaming the System Behavior in Interactive Learning Environments. *Journal of Interactive Learning Research*, 19(2): 185–224.

Cen, H., Koedinger, K., and Junker, B. (2005). Automating Cognitive Model Improvement by A\*Search and Logistic Regression. In J.E. Beck (Ed.), *Educational Data Mining: Papers From the 2005 AAAI Workshop* (pp. 47–53). Menlo Park, CA: AAAI Press.

Cen, H., Koedinger, K.R., and Junker, B. (2006). Learning Factors Analysis: A General Method for Cognitive Model Evaluation and Improvement. In M. Ikeda, K.D. Ashley and T.W. Chan (Eds.), *Proceedings of the 8th International Conference on Intelligent Tutoring Systems* (pp. 164–175). Berlin, Germany: Springer-Verlag.

Cen, H., Koedinger, K., and Junker, B.W. (2007). Is Over Practice Necessary?—Improving Learning Efficiency With the Cognitive Tutor through Educational Data Mining. In R. Luckin, K. Koedinger and J. Greer (Eds.), *Artificial Intelligence in Education—Building Technology Rich Learning Contexts that Work* (pp. 511–518). Amsterdam, Netherlands: IOS Press.

Feng, M., Heffernan, N.T. (2006). Informing Teachers Live About Student Learning: Reporting in the Assistment System. *Technology, Instruction, Cognition, and Learning, 3*(1/2): 115–128.

Feng, M., Heffernan, N.T. (2007). <u>Towards Live Informing and Automatic Analyzing of Student Learning:</u> <u>Reporting in Assistment System</u>. *Journal of Interactive Learning Research*, *18*(2): 207–230.

- Feng, M., Beck, J., Heffernan, N., Beck, J., and Koedinger, K. (2008). Can We Predict Which Groups of Questions Students Will Learn From? In Baker and Beck (Eds.), *Proceedings of the 1st International Conference on Education Data Mining* (pp. 218–225). Montreal, Canada.
- Feng, M., Heffernan, N.T., and Koedinger, K.R. (2005). Looking for Sources of Error in Predicting Students' Knowledge. In J.E. Beck (Ed.), *Educational Data Mining: Papers From the 2005 AAAI Workshop* (pp. 54–61). Menlo Park, CA: AAAI Press.
- Feng, M., Heffernan, N.T., and Koedinger, K.R. (2006). Predicting State Test Scores Better With Intelligent Tutoring Systems: Developing Metrics to Measure Assistance Required. In M. Ikeda, K.D. Ashley and T.W. Chan (Eds.), *Proceedings of the 8th International Conference on Intelligent Tutoring Systems* (pp. 31–40). Berlin, Germany: Springer-Verlag.
- Feng, M., Heffernan, N.T, and Koedinger, K.R. (2006). Addressing the Testing Challenge With a Web-Based E-Assessment System that Tutors as It Assesses. In *Proceedings of the 15th International World Wide Web Conference* (pp. 307–316). New York, NY: ACM Press.
- Feng, M., Heffernan, N., Mani, M., and Heffernan C. (2006). Using Mixed-Effects Modeling to Compare Different Grain-Sized Skill Models. In J. Beck, E. Aimeur and T. Barnes (Eds.), *Educational Data Mining: Papers From the 2006 AAAI Workshop* (pp.57–66). Menlo Park, CA: AAAI Press.
- Heffernan, N., Koedinger, K., and Razzaq, L. (2008). Expanding the Model-Tracing Architecture: A 3rd Generation Intelligent Tutor for Algebra Symbolization. *The International Journal of Artificial Intelligence in Education*, 18 (2): 153–178.
- Junker, B.W. (2007). Using On-Line Tutoring Records to Predict End-Of-Year Exam Scores: Experience With the Assistments Project and MCAS 8th Grade Mathematics. In R.W. Lissitz (Ed.), *Assessing and Modeling Cognitive Development in School: Intellectual Growth and Standard Settings*. Maple Grove, MN: JAM Press.
- Kardian, K., and Heffernan, N.T. (2006). Knowledge Engineering for Intelligent Tutoring Systems: Assessing Semi-Automatic Skill Encoding Methods. In M. Ikeda, K.D. Ashley and T.-W. Chan (Eds.), *Proceedings of the 8th International Conference on Intelligent Tutoring Systems* (pp. 735–737). Berlin, Germany: Springer-Verlag.
- Koedinger, K.R., McLaughlin, E.A., and Heffernan, N.T. (2010). A Quasi-Experimental Evaluation Of An On-Line Formative Assessment and Tutoring System. *Journal Of Educational Computing Research*, 43(4): 489-510.
- Mendicini, M., Heffernan, N., and Razzaq, L. (2008). Comparing Classroom Problem-Solving With No Feedback to Web-Based Homework Assistance. In Woolf, Aimeur, Nkambou, and Lajoie (Eds.), *Proceedings of the 9th International Conference on Intelligent Tutoring Systems* (pp. 426–437). Berlin, Germany: Springer-Verlag.
- Nuzzo-Jones, G., Walonoski, J.A., Heffernan, N.T., Livak, T. (2005). The Extensible Tutor Architecture: a New Foundation for ITS. In C.K. Looi, G. Mccalla, B. Bredeweg, and J. Breuker (Eds.), *Artificial Intelligence in Education—Supporting Learning through Intelligent and Socially Informed Technology* (pp. 902–904). Amsterdam, Netherlands: IOS Press.
- Pardos, Z., Feng, M., and Heffernan, N.T., and Heffernan-Linquist, C. (2007). Analyzing Fine-Grained Skill Models Using Bayesian and Mixed Effect Methods. In R. Luckin, K. Koedinger, and J. Greer (Eds.), *Artificial Intelligence in Education—Building Technology Rich Learning Contexts that Work* (pp. 626–628). Amsterdam, Netherlands: IOS Press.

- Pardos, Z.A., Heffernan, N.T., Anderson, B., and Heffernan, C. (2006). Using Fine-Grained Skill Models to Fit Student Performance With Bayesian Networks. *On-Line Proceedings of the Workshop on Educational Data Mining at the Eighth International Conference on Intelligent Tutoring Systems*: 5–12.
- Razzaq, L., Feng, M., Heffernan, N.T., Koedinger, K., Nuzzo-Jones, G., Junker, B.W., Macasek, M.A., Rasmussen, K.P., Turner.T.E., and Walonoski, J.A. (2007). A Web-Based Authoring Tool for Intelligent Tutors: Blending Assessment and Instructional Assistance. In N. Nedjah, L.D. Mourelle, M.N. Borges, and N.N. Almeida (Eds.), *Intelligent Educational Machines: Methodologies and Experiences* (pp.23–49). New York, NY: Springer.
- Razzaq, L., Feng, M., Nuzzo-Jones, G., Heffernan, N.T., Koedinger, K.R., Junker, B., Ritter, S., Knight, A., Aniszczyk, C., Choksey, S., Livak, T., Mercado, E., Turner, T.E., Upalekar. R, Walonoski, J.A., Macasek, M.A., and Rasmussen, K.P. (2005). Blending Assessment and Instructional Assisting. In C.K. Looi, G. Mccalla, B. Bredeweg, and J. Breuker (Eds.), *Artificial Intelligence in Education—Supporting Learning through Intelligent and Socially Informed Technology* (pp. 555–562). Amsterdam, Netherlands: IOS Press.
- Razzaq, L., Heffernan, N.T. (2006). Scaffolding vs. Hints in the Assistment System. In M. Ikeda, K.D. Ashley and T.W. Chan (Eds.), *Proceedings of the 8th International Conference on Intelligent Tutoring Systems* (pp. 635–644). Berlin, Germany: Springer-Verlag.
- Razzaq, L., and Heffernan, N.T. (2008). Towards Designing a User-Adaptive Web-Based E-Learning System. In M. Czerwinski, A.M. Lund, and D.S. Tan (Eds.), *Extended Abstracts Proceedings of the 2008 Conference on Human Factors in Computing Systems* (pp. 3525–3530). Florence, Italy: ACM 2008.
- Razzaq, L., Heffernan, N.T., and Lindeman, R.W. (2007). What Level of Tutor Interaction Is Best? In R. Luckin, K. Koedinger and J. Greer (Eds.), *Artificial Intelligence in Education—Building Technology Rich Learning Contexts that Work* (pp. 222–229). Amsterdam, Netherlands: IOS Press.
- Rose, C., Donmez, P., Gweon, G., Knight, A., Junker, B., Cohen, W., Koedinger, K., and Heffernan, N. (2005). Automatic and Semi-Automatic Skill Coding With a View Towards Supporting On-Line Assessment. In C.K. Looi, G. McCalla, B. Bredeweg, and J. Breuker (Eds.), *Artificial Intelligence in Education—Supporting Learning through Intelligent and Socially Informed Technology* (pp. 571–578). Amsterdam, Netherlands: IOS Press.
- Turner, T.E., Macasek, M.A., Nuzzo-Jones, G., Heffernan, N.T, Koedinger, K. (2005). The Assessment Builder: a Rapid Development Tool for ITS. In C.K. Looi, G. Mccalla, B. Bredeweg, and J. Breuker (Eds.), *Artificial Intelligence in Education—Supporting Learning through Intelligent and Socially Informed Technology* (pp. 929–931). Amsterdam, Netherlands: IOS Press.
- Walonoski, J., and Heffernan, N.T. (2006). Detection and Analysis of Off-Task Gaming Behavior in Intelligent Tutoring Systems. In M. Ikeda, K.D. Ashley and T.-W. Chan (Eds.), *Proceedings of the 8th International Conference on Intelligent Tutoring Systems* (pp. 382–391). Berlin, Germany: Springer-Verlag.
- Walonoski, J., and Heffernan, N.T. (2006). Prevention of Off-Task Gaming Behavior in Intelligent Tutoring Systems. In M. Ikeda, K.D. Ashley and T.-W. Chan (Eds.), *Proceedings of the 8th International Conference on Intelligent Tutoring Systems* (pp. 722–724). Berlin, German: Springer-Verlag.

## 2004

## R305K040001

An Examination of the Impact of Big Math for Little Kids on Pre-K and Kindergarten Students' Learning of Math

Education Development Center, Inc.

Clements, Margaret

Project Website: <a href="http://cct.edc.org/projects/big-math-little-kids">http://cct.edc.org/projects/big-math-little-kids</a>

## Publications:

Ertle, B.B., Ginsburg, H.P., Cordero, M.I., Curran, T.M., Manlapig, L., and Morgenlander, M. (2008). The Essence of Early Childhood Mathematics Education and the Professional Development Needed to Support It. In A. Dowker (Ed.), *Mathematical Difficulties: Psychology and Interventions* (pp. 59–83). Oxford, UK: Elsevier Science Publishers.

Ginsburg, H.P., Lee, J.S., and Boyd, J.S. (2008) <u>Mathematics Education for Young Children: What It is and How to Promote It</u>. *SRCD Social Policy Report*, *22* (1): 3–22.

#### R305K040003

## **Algebraic Interventions for Measured Achievement**

WestEd

Schneider, Steve

Related IES Projects: <u>Algebra Intervention for Measured Achievement—Full Year Curriculum</u> (R305A070105)

## **Publications:**

WestEd (2010). AIM for Algebra. It's about Time: Mount Kisco, NY.

#### R305K040008

<u>Integrated Software for Artificial Intelligence Tutoring and Assessment in Science</u> Quantum Simulations, Inc.

Johnson, Benny

Project Website: http://www.quantumsimulations.com/chemistry.html

Related IES Projects: Integrated Software for Artificial Intelligence Tutoring and Assessment in Science (R305A070067) and A Randomized Controlled Study of the Effects of Intelligent Online Chemistry Tutors in Urban California School Districts (R305A080063)

## **Publications:**

Johnson, B.G., and Holder, D.A. (2010). A Model-Tracing Intelligent Tutoring System for Oxidation Number Assignment. *The Chemical Educator*, *15*: 447-454.

Kuhel, J.J., Wheeler, M.C., Miele, P.E., Holder, D.A., Johnson, B.G., Paterno Parsi, A.A., and Madura, J.D. (2010). Quantitative Impact of an Artificial Intelligence Tutoring System on Student Performance in Assigning Oxidation Numbers in Chemical Formulas. *The Chemical Educator*, *15*,:455-460.

## R305K040051

## **Developing and Using Diagnostic Items in Mathematics and Science**

Educational Testing Service Wylie, Caroline

#### **Publications:**

Ciofalo, J.F., and Wylie, E.C. (2006). Using Diagnostic Classroom Assessment: One Item at a Time. *Teachers College Record*. http://www.tcrecord.org/library ID Number: 12285.

Wylie, E.C., and Ciofalo, J.F. (2008). Supporting Teachers' Use of Individual Diagnostic Items. *Teachers College Record*. http://www.tcrecord.org/library ID Number: 15363.

## R305K040081

## **Early Learning in Mathematics: A Prevention Approach**

University of Oregon Chard, David

Related IES Projects: <u>Early Learning in Mathematics</u>: <u>Efficacy in Kindergarten Classrooms</u> (R305A080114) and <u>A Randomized Study of the Efficacy of a Two-Year Mathematics</u> Intervention for At-Risk Pre-Kindergarten and Kindergarten Students (R305A120262)

#### **Publications:**

Chard, D.J., Baker, S.K., Clarke, B., Jungjohann, K., Davis, K., and Smolkowski, K. (2008). <u>Preventing Early Mathematics Difficulties: The Feasibility of a Rigorous Kindergarten Mathematics Curriculum.</u> *Learning Disabilities Quarterly, 31* (1): 11–20.

Chard, D.J., Clarke, B., Baker, S., Otterstedt, J., Braun, D., and Katz, R. (2005). <u>Using Measures of Number Sense to Screen for Difficulties in Mathematics: Preliminary Findings.</u> *Assessment for Effective Intervention*, 30 (2): 3–14.

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Clarke, B., Baker, S., and Chard, D.J. (2008). Best Practices in Mathematics Intervention and Assessment. In A. Thomas and J. Grimes (Eds.), *Best Practices in School Psychology* (pp. 465–476). Bethesda, MD: National Association of School Psychologists.

Clarke, B., Baker, S., and Chard, D.J. (2007). Measuring Number Sense Development in Young Children: A Summary of Early Research. *Leadership to Math Success for All*, 5: 1–11.

Clarke, B., Baker, S.K., Smolkowski, K., and Chard, D. (2008). <u>An Analysis of Early Numeracy Curriculum-Based Measurement: Examining the Role of Growth in Student Outcomes.</u> *Remedial and Special Education, 29*: 46–57.

## 2005

## R305K050038

The Scientific Literacy Project: Enhancing Young Children's Scientific Literacy Through Reading and Inquiry-Centered Adult-Child Dialogue

Purdue University Mantzicopoulos, Panayota Helen Patrick and Ala Samarapungavan

#### **Publications:**

Mantzicopoulos, P., and Patrick, H. (2011). <u>Reading Picture Books and Learning Science: Engaging Young Children with Informational Text</u>. *Theory into Practice*, *50*(4), 269-276.

Mantzicopoulos, P., and Patrick, H. (2010). <u>"The Seesaw Is a Machine That Goes Up and Down": Young Children's Narrative Responses to Science-Related Informational Text.</u> Early Education and Development, 21 (3), 412-444.

Mantzicopoulos, P., Patrick, H., and Samarapungavan, A. (2013). <u>Science Literacy in School and Home</u> Contexts: Kindergarteners' Science Achievement and Motivation. *Cognition and Instruction*, 31(1): 62-119.

Mantzicopoulos, P., Patrick, H., and Samarapungavan, A. (2008). <u>Young Children's Motivational Beliefs about Learning Science</u>. *Early Childhood Research Quarterly*, *23*: 378–394.

Mantzicopoulos, P., Samarapungavan, A., and Patrick, H. (2009). "We Learn How to Predict and Be a Scientist:" Early Science Experiences and Kindergarten Children's Social Meanings about Science. Cognition and Instruction, 27: 312–369.

Patrick, H., Mantzicopoulos, P., and Samarapungavan, A. (2009). <u>Reading. Writing. and Conducting Inquiry about Science in Kindergarten.</u> *Young Children, 64*(6): 32–38.

Patrick, H., Mantzicopoulos, P., and Samarapungavan, A. (2009). <u>Motivation for Learning Science in Kindergarten: Is There a Gender Gap and Does Integrated Inquiry and Literacy Instruction Make a Difference?</u> *Journal of Research in Science Teaching, 46*: 166–191.

Patrick, H., Mantzicopoulos, P., Samarapungavan, A., and French, B.F. (2008). <u>Patterns of Young Children's Motivation for Science and Teacher-Child Relationships</u>. *Journal of Experimental Education*, 76: 121–144.

Samarapungavan, A., Mantzicopoulos, P., and Patrick, H. (2008). Learning Science through Inquiry in Kindergarten. *Science Education*, *92*: 868–908.

Samarapungavan, A., Mantzicopoulos, P., Patrick, H., and French, B.F. (2009). <u>The Development and Validation of the Science Learning Assessment (SLA): A Measure of Kindergarten Science Learning.</u> *Journal of Advanced Academics*, 20: 502–535.

Samarapungavan, A., Patrick, H., and Mantzicopoulos, P. (2011). What Kindergarten Students Learn in Inquiry-Based Science Classrooms. Cognition and Instruction, 29(4): 416-470.

#### R305K050045

Classroom Connectivity in Promoting Mathematics and Science Achievement

Ohio State University

Owens, Douglas

Louis Abrahamson (The Better Education Foundation), Frank Demana, Karen Irving, and Stephen Pape (OSU), and Joan Herman (UCLA)

#### **Publications:**

Irving, K.E., Sanalan, V.A, and Shirley, M.L. (2009). <u>Physical Science Connected Classrooms: Case Studies</u>. *Journal of Computers in Mathematics and Science Teaching*, 28 (3): 247–275.

Morton, B.L., and Owens, D.T. (2010). An investigation of developing representations of linear functions in the presence of connected classroom technology. In Brosnan, P., Erchick, D.B., and Flevares, L. (Eds.). *Proceedings of the32nd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Vol 6, (p. 1562). Columbus, OH: The Ohio State University.

Owens, S K. (2010). When professional development produces teacher change: A case study of Mrs. G. In Brosnan, P., Erchick, D.B., and Flevares, L. (Eds.). *Proceedings of the32nd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Vol 6, (p. 1399). Columbus, OH: The Ohio State University.

Owens, S.K. (2010). Professional development: A case study of Mrs. G. In Brosnan, P., Erchick, D. B., and Flevares, L. (Eds.). *Proceedings of the32nd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Vol 6*, (pp. 1428-1436). Columbus, OH: The Ohio State University.

Owens, D.T., Irving, K.E, Pape, S.J., Abrahamson, L., Sanalan, V., and Boscardin, C.K. (2007). The Connected Classroom: Implementation and Research Trial. In C. Montgomerie and J. Seale (Eds.), *Proceedings of the ED-MEDIA World Conference on Educational Multimedia, Hypermedia and Telecommunications* (pp. 3710–3716). Chesapeake, VA: Association for the Advancement of Computing in Education.

Owens, D.T., Pape, S.L., Irving, K.E., Sanalan, V.A., Boscardin, C.K., and Abrahamson, L. (2008). The Connected Algebra Classroom: A Randomized Control Trial. *Proceedings of the International Congress on Mathematics Education*. http://tsg.icmell.org/document/get/249.

Owens, D.T., Irving, K.E, Pape, S.J., Sanalan, V.A., Owens, S.K., and Abrahamson, L. (2009, September). Professional development for teaching in connected classrooms. In S.L. Swars, D.W. Stinson, and S. Lemons-Smith. (Eds.). *Proceedings of the 31st Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Vol. 5, (pp. 1024-1032). Atlanta, GA: Georgia State University.

Pape, S.J., Irving, K.E., Bell, C.V., Shirley, M.,L., Owens, D.T., Owens, S., Bostic, J.D., and Lee, S.C. (2012). Principles of effective pedagogy within the context of connected classroom technology: Implications for teacher knowledge. In R.N. Ronau, C.R. Rakes, and M.L. Niess (Eds), *Educational technology, teacher knowledge, and classroom impact: A research handbook on frameworks and approaches* (pp. 176-199). Hershey, PA: IGI Global.

Pape, S.J., Irving, K.E., Owens, D.T., and Abrahamson, L. (2005). Classroom Connectivity in Promoting Algebra I and Physical Science Achievement and Self-Regulated Learning. In K. Steffens, R. Carneiro, and J. Underwood (Eds.), *Proceedings of the TACONET Conference: Self-Regulated Learning in Technology Enhanced Learning Environments* (pp. 143–158). Herzogenrath, Germany: Shaker Verlag.

Shirley, M.L., Irving, K.E., Sanalan, V.A., Pape, S J. and Owens, D.T. (2011). <u>The practicality of implementing connected classroom technology in secondary mathematics and science classrooms</u>. *International Journal of Science and Mathematics Education*, 9(2): 459-481.

## R305K050050

Math Pathways and Pitfalls Lessons for K-7 Students: Improving Mathematics Achievement for English Language Learners

WestEd

Barnett-Clarke, Carne

Project Website: <a href="http://www.wested.org/cs/we/view/pj/81">http://www.wested.org/cs/we/view/pj/81</a>

**Publications:** 

## R305K050082

**Developing an Intervention to Foster Early Number Sense and Skill** University of Illinois

Baroody, Arthur

Related IES Projects: Fostering Fluency with Basic Addition and Subtraction (R305A080479)

#### Publications:

Baroody, A.J. (2011). Chapter 2—Learning: A Framework . In F. Fennell (Ed.), *Special Education and Mathematics: Helping Children with Learning Difficulties Achieve Mathematical Proficiency*. Reston, VA: National Council of Teachers of Mathematics.

Baroody, A.J. (2008). Fostering Early Numeracy in Preschool and Kindergarten. In J. Balayeva (Ed.), *The Encyclopedia of Language and Literacy Development*.

Baroody, A.J., and Li, X. (2009). Mathematics Instruction that Makes Sense for 2 to 5 Year Olds. In E.L. Essa and M.M. Burnham (Eds.), *Informing Our Practice: Useful Research on Young Children's Development* (pp. 119–135). Washington, DC: The National Association for the Education of Young Children.

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Baroody, A.J., Eiland, M.D., Purpura, D.J., and Reid, E.E. (2012). Fostering At-Risk Kindergarten Children's Number Sense. *Cognition and Instruction*, *30*(4): 435-470.

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## R305K050086

AnimalWatch: An Intelligent Tutoring System for Grade 6 Mathematics University of Southern California

Beal, Carole

Related IES Projects: <u>Efficacy Study of AnimalWatch</u>: <u>An Intelligent Tutoring System for Pre-Algebra</u> (R305A090197)

#### **Publications:**

Arroyo, I., Woolf, B.P., and Beal, C.R. (2006). Addressing Cognitive Differences and Gender During Problem Solving. *International Journal of Technology, Instruction, Cognition and Learning*, 4: 31–63.

Beal, C.R., Adams, N., and Cohen, P.R. (2010). <u>Reading Proficiency and Mathematics Problem Solving by English Language Learners.</u> *Urban Education, 45*(1): 58–74.

Beal, C.R., Arroyo, I.M., Cohen, P.R., and Woolf, B.P. (2010). Evaluation of Animal Watch: An Intelligent Tutuoring System for Arithmetic and Fractions. *Journal of Interactive Online Learning*, 9 (1): 64–77.

Beal, C.R., and Cohen, P. (2005). Computational Methods for Evaluating Student and Group Learning Histories in Intelligent Tutoring Systems. In C. K. Looi, G. McCalla, B. Bredeweg, and J. Breuker (Eds.), *Artificial intelligence in education: Supporting learning through intelligent and socially informed technology*, pp. 80–88. Amsterdam, Netherlands: IOS Press.

Beal, C.R., Shaw, E., and Birch, M. (2007). Intelligent Tutoring and Human Tutoring in Small Groups: An Empirical Comparison. In R. Luckin, K. R. Koedinger and J. Greer (Eds.), *Artificial Intelligence in Education: Building Technology Rich Learning Contexts that Work* (pp. 536–538). Amsterdam, Netherlands: IOS Press.

Birch, M., and Beal, C.R. (2008). Problem Posing in AnimalWatch: An Interactive System for Student-Authored Content. In *Proceedings of the 21st International Florida Artificial Intelligence Research Society Conference*, Coconut Grove, FL.

Cohen, P.R., abd Beal, C.R. (2008). Temporal Data Mining for Educational Applications. *Lecture Notes in Computer Science*, 5351: 66–77.

Cohen, P.R., Beal, C.R., and Adams, N. (2008). The Design, Deployment and Evaluation of the Animalwatch Intelligent Tutoring System. *Proceedings of the 5th Prestigious Applications of Intelligent Systems Conference*, 178: 663–667.

Woolf, B.P., Arroyo, I., Beal, C.R., and Murray, T. (2006). Gender and Cognitive Differences in Help Effectiveness During Problem Solving. *International Journal of Technology, Instruction, Cognition and Learning*, *3*: 89–95.

#### R305K050140

**Molecules and Minds: Optimizing Simulations for Chemistry Education** 

New York University Plass, Jan

Catherine Milne, Bruce Homer, and Trace Jordan

Project Website: http://create.alt.ed.nyu.edu/molecules/.

Related IES Projects: <u>Molecules and Minds: Developing Bridging Scaffolds to Improve</u> Chemistry Learning (R305A090203)

#### **Publications:**

Brünken, R., Plass, J.L., and Moreno, R. (2010). Current Issues and Open Questions in Cognitive Load Research. In J. L. Plass, R. Moreno, and R. Brünken (Eds.), *Cognitive Load Theory* (pp.253–272). New York, NY: Cambridge.

Domagk, S., Schwartz, R.N., and Plass, J.L. (2010). Interactivity In Multimedia Learning: An Integrated Model. *Computers In Human Behavior*, 26(5): 1024-1033.

Homer, B.D., and Hayward, E.O. (2008). Cognitive and Representational Development In Children. In K. B. Cartwright (Ed.), *Literacy Processes: Cognitive Flexibility In Learning and Teaching* (pp. 19-41). New York, NY US: Guilford Press.

Homer, B.D., and Nelson, K.N. (2009). <u>Naming Facilitates Young Children's Understanding of Scale Models: Language and the Development of Symbolic Understanding</u>. *Journal of Cognition and Development*, *10*(1-2): 115-134.

Homer, B.D. and Plass, J.L. (2009). <u>Expertise Reversal for Iconic Representations in Science Visulizations</u>. *Instructional Science: An International Journal of the Learning Sciences*, *38* (3): 259–276.

Homer, B.D., Plass, J.L., and Blake, L. (2008). The Effects of Video on Cognitive Load and Social Presence in Computer-Based Multimedia-Learning. *Computers in Human Behavior*, 24 (3): 786–797.

Kalyuga, S., and Plass, J.L. (2008). Evaluating and Managing Cognitive Load in Educational Games. In R.E. Ferdig (Ed.), *Handbook of Research on Effective Electronic Gaming in Education* (Vol. 2, pp. 719–737). Hershey, PA: IGI Global Press.

Kalyuga, S., and Plass, J.L. (2007). Managing Cognitive Load in Instructional Simulations. In *Proceedings of the IADIS International Conference E-Learning* (pp. 198–219). IADIS Press: <a href="http://www.iadisportal.org">http://www.iadisportal.org</a>.

Lee, H., Plass, J.L., and Homer, B.D. (2006). <u>Optimizing Cognitive Load for Learning from Computer-Based Science Simulations</u>. *Journal of Educational Psychology*, *98*: 902–913.

Milne, C. (2007). Power, Status and the Whole Shebang: a Personal Perspective of Collaborative Research. In S. Ritchie (Ed.), *Research Collaboration: Relations and Praxis* (pp. 107–122). Rotterdam, Netherlands: Sense Publishers.

Plass, J.L. (2009). Using Cognitive Load Theory to Improve Teaching and Learning of Surgery. *American College of Surgeons Residency Assistance Page*, July 2009. http://www.facs.org/education/rap/plass0609.html.

Plass, J.L., Homer, B., and Hayward, E. (2009). <u>Design Factors for Educationally Effective Animations and Simulations</u>. *Journal of Computing in Higher Education*, 21 (1): 31–61.

Plass, J.L., Homer, B.D., Milne, C., Jordan, T., Kalyuga, S., Kim, M., and Lee, H.J. (2009). Design Factors for Effective Science Simulations: Representation of Information. *International Journal of Gaming and Computer-Mediated Simulations*, 1 (1): 16–35.

Plass, J.L. and Kalyuga, S., and Leutner, D. (2010). Individual Differences and Cognitive Load Theory. In J. L. Plass, R. Moreno, and R. Brünken (Eds.), *Cognitive Load Theory* (pp. 65–90). New York, NY: Cambridge.

## R305K050157

# **Scaling Up TRIAD: Teaching Early Mathematics for Understanding with Trajectories and Technologies**

State University of New York, Buffalo Clements, Douglas Julie Sarama, Jaekyung Lee, Mark Lipsey, and Dale Farran

Project Website: http://www.ubtriad.org/

Related IES Projects: <u>Longitudinal Study of a Successful Scaling-Up Project: Extending TRIAD</u> (R305A110188)

#### **Publications:**

Brown, C.S., Sarama, J., and Clements, D.H. (2007). <u>Thinking About Learning Trajectories in Preschool.</u> *Teaching Children Mathematics*, *14*: 178–181.

Clements, D.H., Sarama, J., Spitler, M.E., Lange, A.A., and Wolfe, C.B. (2011). <u>Mathematics Learned by Young Children in an Intervention Based on Learning Trajectories: A Large-Scale Cluster Randomized Trial.</u> *Journal for Research in Mathematics Education*.

Clements, D.H. (2007). <u>Curriculum Research: Toward a Framework for 'Research-Based Curricula'</u>. *Journal for Research in Mathematics Education, 38*: 35–70.

Clements, D.H. (2008). Linking Research and Curriculum Development. In L.D. English (Ed.), *Handbook of International Research in Mathematics Education*. (Second ed., pp. 589–625). New York, NY: Taylor and Francis.

Clements, D.H., and Sarama, J. (2007). Early Childhood Mathematics Learning. In F.K. Lester, Jr. (Ed.), *Second Handbook of Research on Mathematics Teaching and Learning* (pp. 461–555). New York, NY: Information Age Publishing.

Clements, D.H., and Sarama, J. (2007). Einsatz Von Computern in Amerikanischen Vor- Und Grundschulen — En Zwischenbericht [Using Computers in American Kindergartens and Primary Schools: An Interim Report]. In H. Mitzlaff (Ed.), Internationales Handbuch: Computer (ICT), Grundschule, Kindeergarten and Neue Lernkultur (Vol. 1, pp. 251–259). Baltmannsweiler, Germany: Schneider Verlag Hohengehren.

Clements, D.H., and Sarama, J. (2007). Zur Rolle Des Computers in Der Frühen Mathematik in Amerikanischen Kindergärten and Grundschulen—Das Projekt Building Blocks for Early Childhood Mathematics [The Role of Computers in American Kindergartens and Primary Schools: The Building Blocks for Early Childhood Mathematics Project]. In H. Mitzlaff (Ed.), Internationales Handbuch:

Computer (ICT), Grundschule, Kindeergarten and Neue Lernkultur (Vol. 2, pp. 538–546). Baltmannsweiler, Germany: Schneider Verlag Hohengehren.

Clements, D.H., and Sarama, J. (2007). Gold Der Narren?—Fools's Gold?—Kritische Bemerkungen Zur Kritik Der Alliance for Childhood Et Al. [Fool's Gold? Critical Remarks About the Critics From the Alliance for Childhood]. In H. Mitzlaff (Ed.), Internationales Handbuch: Computer (ICT), Grundschule, Kindeergarten and Neue Lernkultur (Vol. 2,pp. 740–748). Baltmannsweiler, Germany: Schneider Verlag Hohengehren.

Clements, D.H., and Sarama, J. (2007). Mathematics. In R.S. New and M. Cochran (Eds.), *Early Childhood Education: An International Encyclopedia* (Vol. 2, pp. 502–509). Westport, CN: Praeger.

Clements, D.H., and Sarama, J. (2007). Curriculum, Technology. In R.S. New and M. Cochran (Eds.), *Early Childhood Education: An International Encyclopedia* (Vol. 1, pp. 221–225). Westport, CN: Praeger.

Clements, D.H., and Sarama, J. (2007). <u>Effects of a Preschool Mathematics Curriculum: Summative</u> Research on the Building Blocks Project. *Journal for Research in Mathematics Education*, 38: 136–163.

Clements, D.H., and Sarama, J. (2008). <u>Experimental Evaluation of the Effects of a Research-Based Preschool Mathematics Curriculum.</u> *American Educational Research Journal*, *45*: 443–494.

Clements, D.H., and Sarama, J. (2008). Mathematics and Technology: Supporting Learning for Students and Teachers. In O.N. Saracho and B. Spodek (Eds.), *Contemporary Perspectives on Science and Technology in Early Childhood Education* (pp. 127–147). Charlotte, NC: Information Age Publishing, Inc.

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Clements, D.H., and Sarama, J. (2011). Early Childhood Teacher Education: The Case Of Geometry. *Journal of Mathematics Teacher Education*, *14*(2): 133-148.

Clements, D.H., Sarama, J., and Liu, X. (2008). <u>Development of a Measure of Early Mathematics Achievement Using the Rasch Model: The Research-Based Early Maths Assessment</u>. *Educational Psychology*, 28(4): 457–482.

Clements, D. H., Sarama, J., Spitler, M. E., Lange, A., and Wolfe, C. B. (2011). Mathematics learned by young children in an intervention based on learning trajectories: A large-scale cluster randomized trial. *Journal for Research in Mathematics Education*, 42(2), 127-166.

Clements, D.H., Sarama, J., Yelland, N.J., and Glass, B. (2008). Learning and Teaching Geometry With Computers in the Elementary and Middle School. In M.K. Heid and G.W. Blume (Eds.), *Research on Technology and the Teaching and Learning of Mathematics: Volume 1: Research Syntheses* (pp. 109–154). New York, NY: Information Age Publishing, Inc.

Clements, D.H., Sarama, J., Wolfe, C.B., and Spitler, M.E. (In Press). Longitudinal Evaluation Of A Scale-Up Model For Teaching Mathematics With Trajectories and Technologies: Persistence Of Effects In The Third Year. *American Educational Research Journal*.

Sarama, J., and Clements, D.H. (2006). Mathematics, Young Students, and Computers: Software, Teaching Strategies and Professional Development. *Mathematics Educator*, *9*(2):, 112-134.

Sarama, J., and Clements, D.H. (2008). Building Blocks and Cognitive Building Blocks; Playing To Know The World Mathematically. *American Journal Of Play*, 1: 313-337.

Sarama, J., and Clements, D.H. (2009). Teaching Math In The Primary Grades: The Learning Trajectories Approach. *Young Children*, 64(2): 63-65.

Sarama, J., and Clements, D.H. (2011). <u>Early Childhood Teacher Education: The Case Of Geometry.</u> *Journal Of Mathematics Teacher Education*, *14*(2): 133-148.

Sarama, J., Clements, D.H., Wolfe, C.B., and Spitler, M.E. (2012). Longitudinal Evaluation Of A Scale-Up Model For Teaching Mathematics With Trajectories and Technologies. *Journal Of Research On Educational Effectiveness*, 5(2): 105-135.

Sarama, J., Lange, A., Clements, D.H., and Wolfe, C.B. (2012). The Impacts Of An Early Mathematics Curriculum On Oral Language and Literacy. *Early Childhood Research Quarterly*, 27(3): 489-502.

Weiland, C., Wolfe, C.B., Hurwitz, M.D., Clements, D.H., Sarama, J.A., and Yoshikawae, H. (2012). Early Mathematics Assessment: Validation Of The Short Form Of A Pre-K And Kindergarten Mathematics Measure. *Educational Psychology*, *32*(3): 311-333.

#### R305K050186

Scaling Up the Implementation of a Pre-Kindergarten Mathematics Curriculum in Public Preschool Programs

Regents of the University of California Starkey, Prentice Alice Klein (University of California, Berkeley)

Related IES Projects: <u>A Longitudinal Study of the Effects of a Pre-Kindergarten Mathematics</u> <u>Curriculum on Low-Income Children's Mathematical Knowledge</u> (R305J020026), <u>Closing the SES Related Gap in Young Children's Mathematical Knowledge</u> (R305A080188) and <u>A Randomized Study of the Efficacy of a Two-Year Mathematics Intervention for At-Risk Pre-Kindergarten and Kindergarten Students (R305A120262)</u>

**Publications:** 

# 2006

#### R305K060002

**Enhancing the Mathematical Problem Solving Performance of Sixth Grade Students Using Schema-based Instruction** 

Regents of the University of Minnesota Jitendra, Asha

Project Website: <a href="http://www.cehd.umn.edu/EdPsych/MARS/About.html">http://www.cehd.umn.edu/EdPsych/MARS/About.html</a>

Related IES Projects: <u>Learning of Ratio and Proportion Problem-Solving Using Schema-Based</u> Instruction: Efficacy and Sustainability (R305A110358)

#### **Publications:**

Jitendra, A.K., and Star, J.R. (2012). <u>An Exploratory Study Contrasting High- and Lowachieving Students' Percent Word Problem Solving</u>. *Learning and Individual Differences*, 22: 151–158.

Jitendra, A.K., and Star, J.R. (2011). <u>Meeting The Needs Of Students With Learning Disabilities In Inclusive Mathematics Classrooms: The Role Of Schema-Based Instruction On Mathematical Problem Solving.</u> *Theory into Practice*, *50*(1): 12-19.

Jitendra, A.K., Star, J.R., Rodriguez, M., Lindell, M., and Someki, F. (2011). <u>Improving Students' Proportional Thinking Using Schema-Based Instruction</u>. *Learning and Instruction*, *21*: 731-745.

Jitendra, A.K., Star, J.R., Starosta, K.., Leh, J.M., Sood, S., Caskie, G., Hughes, C.L., and Mack. T.R. (2009). <u>Improving Seventh Grade Students' Learning of Ratio and Proportion: The Role of Schema-Based Instruction</u>. *Contemporary Educational Psychology*, *34*(3): 250–264.

Jitendra, A.K., Woodward, J., and Star, J.R. (2011). Middle School Students' Thinking About Ratios and Proportions. In R. Gersten and R. Newman-Gonchar (Eds.), *Understanding RTI in Mathematics* (pp. 127-150). Baltimore, MD: Paul H. Brookes.

Jitendra, A.K., Star, J.R., Dupuis, D.N., and Rodriguez, M. (2013). Effectiveness Of Schema-Based Instruction For Improving Seventh-Grade Students' Proportional Reasoning: A Randomized Experiment. *Journal of Research on Educational Effectiveness*, 6: 114-136.

#### R305K060011

Getting Fractions Right with Technology-Mediated Peer-Assisted Learning (TechPALS) Roschelle, Jeremy

#### **Publications:**

Rafanan, K., Roschelle, J., Bhanot, R., Gorges, T., and Penuel, W. (2008). Measuring Mathematics Discourse in Technology-Supported Collaborative Activities. *Proceedings of the International Conference of the Learning Sciences*, *3*: 117–118.

Roschelle, J., Rafanan, K., Bhanot, R., Estrella, G., Penuel, W.R., Nussbaum, M., Claro, S. (2010). Scaffolding Group Explanation and Feedback with Handheld Technology: Impact on Students' Mathematics Learning. Educational Technology Research and Development, 58: 399–419.

Roschelle, J., Rafanan, K., Estrella, G., Nussbaum, M., and Claro, S. (2010). <u>From Handheld Collaborative Tool to Effect Classroom Module: Embedding CSCL in a Broader Design Framework</u>. *Computers and Education*, *55*: 1018–1026.

#### R305K060036

Early Childhood Hands-On Science Curriculum Development and Demonstration Miami Museum of Science Brown, Judy

Project Website: <a href="http://www.miamisci.org/echos/">http://www.miamisci.org/echos/</a>

Related IES Projects: <u>Lens on Science: Development and Validation of a Computer-Administered</u>, Adaptive, IRT-Based Science Assessment for Preschool Children (R305A090502) and ECHOS: Early Childhood Hands on Science (R305A100275)

#### **Publications:**

Nayfeld, I., Fuccillo, J., and Greenfield, D. B. (2013). Executive Functions in Early Learning: Extending the Relationship Between Executive Functions and School Readiness to Science. *Learning and Individual Differences*, 28: 81-88.

#### R305K060089

**Numbers Plus: A Comprehensive Approach to Early Mathematics Education** 

High/Scope Educational Research Foundation Epstein, Ann

Related IES Projects: Numbers Plus Efficacy Study (R305A110483)

**Publications:** 

#### R305K060091

Assessing Data Modeling and Statistical Reasoning Vanderbilt University

Lehrer, Richard

Project Website: <a href="http://modelingdata.org/">http://modelingdata.org/</a>

Related IES Projects: <u>Data Modeling Supports the Development of Statistical Reasoning</u> (R305A110685) and <u>Innovative Computer-Based Formative Assessment via a Development</u>, Delivery, Scoring, and Report-Generative System (R305A120217)

#### **Publications:**

Lehrer, R., Kim, M.J., and Jones, S. (2011). Developing Conceptions Of Statistics By Designing Measures Of Distribution. *International Journal on Mathematics Education(ZDM)*, 43(5): 723-736.

Lehrer, R., Kim, M.J., Ayers, E., and Wilson, M. (in press). Toward Establishing A Learning Progression To Support The Development Of Statistical Reasoning. In J.Confrey and A. Maloney (Eds.), *Learning over Time: Learning Trajectories in Mathematics Education*. Charlotte, NC: Information Age Publishers.

#### R305K060142

Measuring the Efficacy and Student Achievement of Research-based Instructional Materials in High School Multidisciplinary Science

Biological Sciences Curriculum Study Taylor, Joseph A.

**Publications:** 

# 2007

# R305A070067

<u>Integrated Software for Artificial Intelligence Tutoring and Assessment in Science</u> Quantum Simulations, Inc.

Johnson, Benny

Related IES Projects: Integrated Software for Artificial Intelligence Tutoring and Assessment in Science (R305K040008) and A Randomized Controlled Study of the Effects of Intelligent Online Chemistry Tutors in Urban California School Districts (R305A080063)

#### **Publications:**

Johnson, B.G, and D.A. Holder (2010). A Model-Tracing Intelligent Tutoring System for Assigning Oxidation Numbers in Chemical Formulas. *Chemical Educator*, *15*: 447-454.

Kuhel, J.J, Wheeler, M.C., Miele, P.E., Holder, D.A. Johnson, B.G, Paterno Parsi, A.A. and Madura, J.D. (2010). Quantitative Impact of an Artificial Intelligence Tutoring System on Student Performance in Assigning Oxidation Numbers in Chemical Formulas. *Chemical Educator*, *15*: 455-460.

# R305A070068

<u>Pre-Kindergarten Mathematics and Science for At-Risk Children: Outcomes-Focused</u> Curricula and Support for Teaching Quality

University of Virginia Kinzie, Mable

#### **Publications:**

Kilday, C.R., and Kinzie, M.B. (2009). <u>An Analysis of Instruments that Measure the Quality of Mathematics Teaching in Early Childhood</u>. *Early Childhood Education Journal*, *36*(4): 1082–3301.

Sackes, M., Trundle, K.C., and Flevares, L. (2009a). <u>Using Children's Books to Teach Inquiry Skills.</u> *Young Children, 64* (6): 24–26.

Sackes, M., Trundle, K.C., and Flevares, L. (2009b). <u>Using Children's Literature to Teach Standard-Based Science Concepts in Early Years.</u> *Early Childhood Education Journal*, *36* (5): 415–422.

Sackes, M., Flevares, L., and Trundle, K.C. (2010). <u>Four- to Six-Year Old Children's Conceptions of the Mechanism of Rainfall</u>. *Early Childhood Research Quarterly*, 25(4): 536-546.

Trundle, K.C. and Sackes, M. (2008). Sky Observations by the Book: Lessons for Teaching Young Children Astronomy Concepts with Picture Books. *Science and Children*, 46 (1): 36–39.

Trundle, K.C., and Sackes, M. (2010). Look! It is Going to Rain: Using Books and Observations to Promote Young Children's Understanding of Clouds. *Science and Children*, 47 (8): 29–31.

Wang, F., Kinzie, M.B., McGuire, P., and Pan, E. (2010). <u>Applying Technology to Inquiry-Based Learning</u> in Early Childhood Education. *Early Childhood Education Journal*, *37* (5): 381–389.

# R305A070105

# Algebra Intervention for Measured Achievement—Full Year Curriculum

WestEd

Schneider, Steve

Related IES Projects: <u>Algebraic Interventions for Measured Achievement</u> (R305K040003)

#### **Publications:**

WestEd (2010). AIM for Algebra. It's about Time: Mount Kisco, NY.

#### R305A070185

**Effectiveness of Cognitive Tutor Algebra One Implemented at Scale** RAND Corporation

Pane, John

**Publications:** 

#### R305A070218

# The Potential Efficacy of Math in a Cultural Context: Sixth Grade Math Modules

University of Alaska, Fairbanks Lipka, Jerry

#### **Publications:**

Kisker, E., Lipka, J., Adams, B.L., Rickard, A., Andrew-Ihrke, D., Yanez, E.E., and Millard, A. (2012) <u>The Potential Of A Culturally-Based Supplemental Math Curriculum To Reduce The Math Performance Gap Between Alaska Native and Other Students.</u> *Journal for Research in Mathematics Education, 43*(1): 75-113.

Lipka, J., Andrew-Ihrke, D., and Yanez, E.E. (2011). <u>Yup'ik Cosmology To School Mathematics: The Power Of Symmetry and Proportional Measuring</u>. *Interchange*, *42*(2), 157-183.

Lipka, J., Andrew-Ihrke, D., and Yanez, E. (in press). Symmetry and More: Contributions Of Yup'ik Elders To Mathematics Education. In C. Nicols (Ed.), *Living Culturally Responsive Mathematics Curriculum and Pedagogy: Making A Difference With/In Indigenous Communities*: Sense Publications.

Lipka, J. Wong, M., Andrew-Ihrke, D., and Yanez, E. (2012). Developing An Alternative Learning Trajectory For Rational Number Reasoning, Geometry, and Measuring Based On Indigenous Knowledge. S. Mukhopadhyay and W.-M. Roth (Eds.), *Alternative Forms Of Knowing (In) Mathematics*: 159-182. Sense Publications.

Making Longitudinal Web-Based Assessments Give Cognitively Diagnostic Reports to Teachers, Parents, and Students While Employing Mastery Learning

Worcester Polytechnic Institute

Heffernan III, Neil

Project Website: https://www.assistments.org/

Related IES Projects: <u>Using Web-based Cognitive Assessment Systems for Predicting Student Performance on State Exams</u> (R305K030140) and <u>An Efficacy Study of Online Mathematics Homework Support: An Evaluation of the ASSISTments Formative Assessment and Tutoring Platform</u> (R305A120125)

#### **Publications:**

Bahador, N., Pardos, Z., Heffernan and Baker, R. (2011). Less is More: Improving the Speed and Prediction Power of Knowledge Tracing by Using Less Data In Pechenizkiy, M., Calders, T., Conati, C., Ventura, S., Romero, C., and Stamper, J. (Eds.) *Proceedings of the 4th International Conference on Educational Data Mining.* pp 101-110.

Baker, R. D., Goldstein, A. B., and Heffernan, N. T. (2011). Detecting Learning Moment-By-Moment. *International Journal Of Artificial Intelligence In Education*, 21(1-2): 5-25.

Baker, R., Pardos, Z., Gowda, S., Nooraei, B., and Heffernan, N. (2011). *Ensembling Predictions of Student Knowledge within Intelligent Tutoring Systems*. In Konstant et al (Eds.) *20th International Conference on User Modeling, Adaptation and Personalization (UMAP 2011)*. pp 13-24.

Broderick, Z., DeNolf, K., Dufault, J., Heffernan, N., and Heffernan, C. (2011). <u>Increasing Parent Engagement In Student Learning Using An Intelligent Tutoring System With Automated Messages</u>. *Journal of Interactive Learning Research*, *20*(4), 467–490.

Feng, M., Beck, J., Heffernan, N., and Koedinger, K. (2008). Can an Intelligent Tutoring System Predict Math Proficiency as Well as a Standardized Test? In E. Baker and Beck (Eds.), *Proceedings of the 1st International Conference on Education Data Mining* (pp. 107–116). Montreal, Canada.

Feng, M., Heffernan, N., and Koedinger, K. (2009). Addressing The Assessment Challenge With An Online System That Tutors As It Assesses. *User Modeling and User-Adapted Interaction*, 19(3): 243-266.

Heffernan, N, Heffernan, C., Decoteau, M., and Militello, M. (2012). Effective and Meaningful Use Of Educational Technology: Three Cases From The Classroom. In C. Dede and J. Richards, (Eds.), *Digital Teaching Platforms*. pp 88-102. New York: Teacher's College Press.

Gong, Y., Beck, J.E., and Heffernan, N.T. (2011). How To Construct More Accurate Student Models: Comparing and Optimizing Knowledge Tracing and Performance Factor Analysis. *International Journal Of Artificial Intelligence In Education*, 21(1-2): 27-46.

Mendicino, M., Razzaq, L. and Heffernan, N. T. (2009). <u>Comparison of Traditional Homework with</u> Computer Supported Homework. *Journal of Research on Technology in Education*, 41(3), 331-359.

Pardos, Z., Gowda, S., Baker, R. and Heffernan, N. (2011). Ensembling Predictions of Student Post-Test Scores for an Intelligent Tutoring System. In Pechenizkiy, M., Calders, T., Conati, C., Ventura, S., Romero,

C., and Stamper, J. (Eds.) *Proceedings of the 4th International Conference on Educational Data Mining.* pp 189-198.

Qiu, Y., Qi, Y., Lu, H., Pardos, Z. and Heffernan, N. (2011). Does Time Matter? Modeling the Effect of Time with Bayesian Knowledge Tracing In Pechenizkiy, M., Calders, T., Conati, C., Ventura, S., Romero, C., and Stamper, J. (Eds.) *Proceedings of the 4th International Conference on Educational Data Mining.* pp 139-148.

Razzaq, L. and Heffernan, N. (2009). To Tutor or Not to Tutor: That is the Question. In Dimitrova, Mizoguchi, du Boulay and Graesser (Eds.) *Proceedings of the 2009 Artificial Intelligence in Education Conference*. IOS Press. pp. 457-464.

Singh, R., Saleem, M., Pradhan, P., Heffernan, C., Heffernan, N., Razzaq, L. and Dailey, M. (2011). Improving K-12 Homework with Computers. *AIED'11 Proceedings of the Artificial Intelligence in Education Conference*. Springer. 328-336.

Singh, R., Saleem, M., Pradhan, P., Heffernan, C., Heffernan, N., Razzaq, L. Dailey, M. O'Connor, C. and Mulchay, C. (2011). Feedback during Web-Based Homework: The Role of HintsIn Biswas et al (Eds) *Proceedings of the Artificial Intelligence in Education Conference 2011*. Springer. LNAI 6738, pp. 328–336.

Trivedi, S., Pardos, Z., Sarkozy, G. and Heffernan, N. (2011). Spectral Clustering in Educational Data Mining. In Pechenizkiy, M., Calders, T., Conati, C., Ventura, S., Romero, C., and Stamper, J. (Eds.) *Proceedings of the 4th International Conference on Educational Data Mining*. Pages 129-138.

#### R305B070048

**Evaluation of the First In Math Online Mathematics Program in New York City: A Randomized Control Trial** 

WestEd Flaherty, John

**Publications:** 

#### R305B070299

<u>Teaching Fractions and Integers: The Development of a Research-Based Instructional</u>

Practice

University of California, Berkeley Saxe, Geoffrey

#### **Publications:**

Saxe, G.B., Gearhart, M., Shaughnessy, M., Earnest, D., Cremer, S., Sitabkhan, Y., Platas, L., and Young, A. (2009). A Methodological Framework and Empirical Techniques for Studying the Travel of Ideas in Classroom Communities. In Schwartz, T., Dreyfus, R. Hershkovitz (Eds.), *Transformation of Knowledge in Classroom Interaction* (pp. 203–222). New York, NY: Routledge.

Saxe, G.B., Earnest, D., Sitabkhan, Y., Haldar, L., Lewis, K., and Zheng, Y. (2010). <u>Supporting Generative Thinking on the Integer Number Line in Elementary Mathematics</u>. *Cognition and Instruction*, 28 (4): 433-474.

Saxe, G.B., De Kirby, K., Le, M., Sitabkhan, Y., and Earnest, D. (In Press). Understanding Learning Across Lessons In Classroom Communities: A Multi-Level Analytic Approach. To Appear In A. Bikner-Ahsbahs, G. Kaiser, N. Presmeg (Eds.). *Doing (Qualitative) Research: Methodology and Methods In Mathematics Education*. ZDM Research Handbook Series: Advances In Mathematics Education. Springer...

Saxe, G.B., Shaughnessy, M., Gearhart, M., and Haldar, L.C. (In Press). Coordinating Numerical and Linear Units: Elementary Students' Strategies For Locating Whole Numbers On The Number Line. *Mathematical Thinking and Learning*.

Saxe, G.B., Diakow, R., Gearhart, M. (2013). Towards Curricular Coherence In Integers and Fractions: The Efficacy Of A Lesson Sequence That Uses The Number Line As The Principal Representational Context. *ZDM.* Special Issue (Classroom-Based Interventions In Mathematics Education): 1-22.

Gearhart, M., and Saxe, G.B. (In Press). Differentiated Instruction In Shared Mathematical Contexts. *Teaching Children Mathematics*.

# R305B070325

mCLASS:Math: Development and Analysis of an Integrated Screening, Progress Monitoring, and Cognitive Assessment System for K-3 Mathematics
Columbia University, Teachers College
Ginsburg, Herbert

#### **Publications:**

Ginsburg, H.P., Pappas, S., Lee, Y.S., and Chiong, C. (2011). How Did You Get That Answer?: Computer Assessments of Young Children's Mathematical Minds in mCLASS:Math. In Noyce, P., and Hickey, D. T., *Formative Assessment in Learning Contexts, the Next Generation*. (pp. 49-67). Harvard Education Press.

Hampton, D.D., Lembke, E.S., Lee, Y.-S., Pappas, S., Chiong, C., and Ginsburg, H. (2012). Technical Adequacy of Early Numeracy Curriculum-Based Progress Monitoring Measures for Kindergarten and First-Grade Students. *Assessment for Effective Intervention*, *37*(2), 118-126.

Lee, Y.S., Lembke, E., Moore, D., Ginsburg, H., and Pappas, S. (2012). Item-Level and Construct Evaluation of Early Numeracy Curriculum-Based Measures. *Assessment for Effective Intervention*, *37*(2): 107-117.

Lee, Y.S., Lembke, E., Moore, D., Ginsburg, H., and Pappas, S. (2007). mCLASS®:MATH –Identifying technically adequate early mathematics measures. Brooklyn, NY: Wireless Generation, Inc.

Lee, Y.S., Pappas, S., and Chiong, C., and Ginsburg, H. (2010). mCLASS®:MATH – Technical Manual. Brooklyn, NY: Wireless Generation, Inc.

#### R305B070430

**Democratizing Access to Core Mathematics Grades 9-12** 

University of Massachusetts, Dartmouth Hegedus, Stephen

# **Publications:**

Berube, B., Hegedus, S., Orrill, C., and Tapper, J. (2010). Does the teacher matter when implementing a new technology and curriculum program? In M.M. F. Pinto and T. F. Kawasaki (Eds.), *Proceedings of the* 

34th Conference of International Group for the Psychology of Mathematics Education (Vol. 2, pp. 209-216). Belo Horizonte, Brazil: PME

Brookstein, A., Hegedus, S., Dalton, S., Tapper, J, and Moniz, R. (2011). *Measuring Student Attitude in SimCalc Classrooms*. Technical Report #4. Fairhaven, MA: Kaput Center for Research and Innovation in STEM Education, UMass Dartmouth. Dalton, S., and Hegedus, S. (in press). Learning and participation in high school classrooms. To appear in S. Hegedus and J. Roschelle (Eds.), *The SimCalc vision and contributions: Democratizing access to important mathematics*. Berlin: Springer-Verlag.

Hegedus, S. (2007). Classroom Connectivity. *Educational Technology Special Issue on Mobile Computing*, 47 (3): 21–25.

Hegedus, S., and Moreno-Armella, L. (2008). Analyzing the Impact of Dynamic Representations and Classroom Connectivity on Participation, Speech and Learning. In L. Radford, G. Schubring, and F. Seeger (Eds.), *Semiotics Education: Epistemology, Historicity and Culture* (pp. 175–194). Rotterdam, Netherlands: Sense Publishers.

Hegedus, S., and Penuel, W. (2008). Studying New Forms of Participation and Classroom Identity in Mathematics Classrooms With Integrated Communication and Representational Infrastructures. *Special Issue of Educational Studies in Mathematics: Democratizing Access to Mathematics through Technology—Issues of Design and Implementation, 68* (2): 171–184.

Moreno-Armella, L., and Hegedus, S., and Kaput J. (2008). Constitution of Symbols and the Evolution of the Reference Field With Digital Technologies. *Special Issue of Educational Studies in Mathematics: Democratizing Access to Mathematics through Technology—Issues of Design and Implementation, 68* (2): 99–112.

#### R305B070508

<u>Successful Transitions to Algebra 1: A Randomized Control Trial of Two Theories of Ninth Grade Algebra Instruction</u>

Johns Hopkins University Balfanz, Robert Ruth Neild

Publications:

#### R305B070554

**Evaluating Math Recovery With Student Outcomes** Vanderbilt University

Cobb, Paul

#### **Publications:**

Smith, T.M., Cobb, P., Farran, D.C., Cordray, D.S., and Munter, C. (2013). Evaluating Math Recovery: Assessing The Causal Impact Of A Diagnostic Tutoring Program On Student Achievement. *American Educational Research Journal*, *50*(2): 397-428.

# 2008

# R305A080063

A Randomized Controlled Study of the Effects of Intelligent Online Chemistry Tutors in Urban California School Districts

WestEd

Schneider, Steve

Related IES Projects: <u>Integrated Software for Artificial Intelligence Tutoring and Assessment in Science</u> (R305K040008) and <u>Integrated Software for Artificial Intelligence Tutoring and Assessment in Science</u> (R305A070067)

**Publications:** 

# R305A080093

Bringing Cognitive Tutors to the Internet: A Website that Helps Middle-School Students
Learn Math

Carnegie Mellon University

Aleven, Vincent

Related IES Projects: <u>Combining Advantages of Collaborative and Individual Learning with an Intelligent Tutoring System for Fractions</u> (R305A120734) and <u>Use of Machine Learning to Adaptively Select Activity Types and Enhance Student Learning with an Intelligent Tutoring System</u> (R305A130215)

**Publications:** 

#### R305A080114

**Early Learning in Mathematics: Efficacy in Kindergarten Classrooms** 

University of Oregon

Baker, Scott

Grant Transferred to: Pacific Institutes for Research

Project Website: <a href="http://ctl.uoregon.edu/research/projects/elm/">http://ctl.uoregon.edu/research/projects/elm/</a>

Related IES Projects: <u>Early Learning in Mathematics: A Prevention Approach</u> (R305K040081) and <u>A Randomized Study of the Efficacy of a Two-Year Mathematics Intervention for At-Risk Pre-Kindergarten and Kindergarten Students</u> (R305A120262)

#### **Publications:**

Clarke, B., Smolkowski, K., Baker, S., Fien, H., and Chard, D. (2011). <u>The Impact of a Comprehensive Tier I Kindergarten Curriculum on the Achievement of Students At-Risk in Mathematics.</u> *Elementary School Journal*, *111*(4): 561-584.

Doabler, C., and Fien, H. (2013). Explicit Mathematics Instruction: What Teachers Can For Teaching At Risk Learners. *Intervention in School and Clinic*, 48(5): 276-285.

Doabler, C.T., Fien, H., Nelson-Walker, N.J., and Baker, S.K. (2012). Evaluating Three Elementary Mathematics Programs For Presence Of Eight Research-Based Instructional Design Principles. *Learning Disability Quarterly*, *35*(4): 200-211

Doabler, C.T. Strand-Cary, M., Jungjohann, K., Fien, H., Clarke, B., Baker, S., Smolkowski, K., and Chard, D. (2012). <u>Enhancing Core Math Instruction for Students at-Risk for Mathematics Disabilities</u>, *Teaching Exceptional Children*, 44(4): 48-57.

## R305A080147

# A Longitudinal Study of Gender and Mathematics Using ECLS-K Data

University of Illinois, Urbana-Champaign Lubienski, Sarah

#### **Publications:**

Lubienski, S. T. (2012). Commentary on the Chapter by Gabriele Kaiser, Maren Hoffstall and Anna B. Orschulik, "Gender Role Stereotypes in the Perception of Mathematics—Results of an Empirical Study with Secondary Students in Germany". In *Towards Equity in Mathematics Education* (pp. 141-144). Springer Berlin Heidelberg.

Lubienski, S.T., Robinson, J.P., Crane, C.C., and Ganley, C.M. (2013). Girls' and Boys' Mathematics Achievement, Affect, and Experiences: Findings from ECLS-K. *Journal for Research in Mathematics Education*, *44*(4), 634-645.

Robinson, J.P., and Lubienski, S.T. (2010). The Development of Gender Gaps in Mathematics and Reading Achievement Gaps: Exploring Direct Cognitive Assessments and Teacher Ratings. *American Educational Research Journal*. 42(2): 268-302

# R305A080225

Multilevel Assessments of Science Standards (MASS)
WestEd

Quellmalz, Edys

**Publications:** 

#### R305A080422

BSCS Science: An Inquiry Approach—Development of a Conceptually Coherent, Multidisciplinary Science Program for Grade Eight

Biological Sciences Curriculum Study Carlson, Janet

Closing the Achievement Gap in Middle School Mathematics Utilizing Stanford
University's Education Program for Gifted Youth Differentiated Mathematics Program
Stanford University
Suppes, Patrick

#### **Publications:**

Suppes, P., Holland, P.W., Hu, Y., and Vu, M.T. (2013). Effectiveness of an Individualized Computer-Driven Online Math K-5 Course in Eight California Title I Elementary Schools. *Educational Assessment*, *18*(3). Published online August 14, 2013. DOI:10.1080/10627197.2013.814516.

# R305A080479

Fostering Fluency With Basic Addition and Subtraction Baroody, Arthur

Related IES Projects: <u>Developing an Intervention to Foster Early Number Sense and Skill</u> (R305K050082)

#### **Publications:**

Baroody, A.J., and Varma, S. (2009). The Active Construction View of Basic Number Fact Knowledge: New Directions for Cognitive Neuroscience. In J. Baek, A. E. Kelly, and L. Kalbfleisch (Eds.), *Neuropsychology and Mathematics Education*.

Baroody, A.J., Bajwa, N.P., and Eiland, M. (2009). Why Can't Johnny Remember the Basic Facts? *Developmental Disabilities Research Reviews*, *15*(1): 69–79.

Baroody, A.J., Eiland, M.D., Purpura, D.J., and Reid, E.E. (2012). Fostering At-Risk Kindergarten Children's Number Sense. *Cognition and Instruction*, *30*(4): 435–470.

Baroody, A.J., Eiland, M. D., Purpura, D.J., and Reid, E.E. (2013). Can Computer-Assisted Discovery Learning Foster First Graders' Fluency With The Most Basic Addition Combinations? *American Educational Research Journal*, *50*(3): 533-573.

Baroody, A.J., Purpura, D.J., and Reid, E.E. (2012). Comments On Learning and Teaching Early and Elementary Mathematics. In J.S. Carlson, J.R. Levin (Eds.), *Instructional Strategies For Improving Students' Learning: Focus On Early Reading and Mathematics* (pp. 163-175). Charlotte, NC US: IAP Information Age Publishing.

Baroody, A.J., Purpura, D.J., Reid, E.E., Paliwal, V., and Bajwa, N.P. (in press). Early childhood mathematics education. P. Schuermann (Ed.), *Oxford Bibliographies Online*. New York: Oxford University Press.

Baroody, A.J., and Varma, S. (in press). The Active Construction View Of Basic Number Fact Knowledge: New Directions For Cognitive Neuroscience. In J. Baek, A. E. Kelly, and L. Kalbfleisch (Eds.), *Neuropsychology and mathematics education*.

Palmer, A., and Baroody, A.J. (2011). Blake's Development Of The Number Words "One," "Two," and "Three". *Cognition and Instruction*, 29(3): 265-296.

Purpura, D.J., Baroody, A.J., and Lonigan, C.J. (in press). The Transition from Informal to Formal Mathematical Knowledge: Mediation by Numerical Knowledge. *Journal of Educational Psychology*.

Agent and Library Augmented Shared Knowledge Areas (ALASKA)

Pepperdine University Hamilton, Eric

**Publications:** 

# 2009

# R305A090094

**Efficacy of the Science Writing Heuristic Approach** 

University of Iowa Hand, Brian William Therrien and Mack Shelley

#### **Publications:**

French, B.F., Hand, B., Therrien, W.J., and Valdivia Vazquez, J.A. (2012). Detection Of Sex Differential Item Functioning In The Cornell Critical Thinking Test. *European Journal of Psychological Assessment*, 28(3): 201-207.

Therrien, W., Hughes, C. and Hand, B. (2011). Introduction To Special Issue On Science Education and Students With Learning Disabilities. *Learning Disabilities Research and Practice*, *26*: 186-187.

Therrien, W. J., Taylor, J. C., Hosp, J. L., Kaldenberg, E. R., and Gorsh, J. (2011). Science Instruction For Students With Learning Disabilities: A Meta-Analysis. *Learning Disabilities Research and Practice*, *26*(4): 188-203.

Villanueva, M.G. and Hand, B. (2011). <u>Science For All: Engaging Students With Special Needs In and About Science</u>. *Learning Disabilities Research and Practice*, *26*: 233-240.

#### R305A090111

The Cognitive, Psychometric, and Instructional Validity of Curriculum-Embedded

Assessments: In-Depth Analyses of the Resources Available to Teachers Within "Everyday Mathematics"

University of Illinois at Chicago Pellegrino, James Susan Goldman, Louis DiBello, William Stout, and Alison Castro

**Publications:** 

#### R305A090170

**ASSISTment Meets Science Learning (AMSL)** 

Worcester Polytechnic Institute Gobert, Janice Neil Heffernan, Joseph Beck, and Kenneth Koedinger Related IES Projects: <u>The Development of an Intelligent Pedagogical Agent for Physical Science</u> Inquiry Driven by Educational Data Mining (R305A120778)

#### Publications:

Pedro, M., Baker, R.D., Gobert, J.D., Montalvo, O., and Nakama, A. (2013). Leveraging Machine-Learned Detectors Of Systematic Inquiry Behavior To Estimate and Predict Transfer Of Inquiry Skill. *User Modeling and User-Adapted Interaction*, 23(1): 1-39.

#### R305A090195

# **Testing the Effectiveness of CALM for High School Chemistry Students**

Indiana University Plucker, Jonathan Romualdo de Souza

**Publications:** 

#### R305A090197

Efficacy Study of AnimalWatch: An Intelligent Tutoring System for Pre-Algebra

WestEd

Schneider, Steve

Carole Beal (University of Arizona)

Project Website: http://www.animalwatch.arizona.edu/

Related IES Projects: AnimalWatch: An Intelligent Tutoring System for Grade 6 Mathematics

(R305K050086)

**Publications:** 

## R305A090203

# Molecules and Minds: Developing Bridging Scaffolds to Improve Chemistry Learning

New York University

Milne, Catherine

Jan Plass; Bruce Homer; Trace Jordan

Related IES Projects: <u>Molecules and Minds: Optimizing Simulations for Chemistry Education</u> (R305K050140)

#### **Publications:**

Plass, J.L., Moreno, R., and Brünken, R. (Eds.). (2010). *Cognitive Load Theory*. Cambridge University Press.

Systems and Cycles: Using Structure-Behavior-Function Thinking as a Conceptual Tool for Understanding Complex Natural Systems in Middle School Science

Rutgers University Hmelo-Silver, Cindy Rebecca Jordan, Ashok Goel, and Spencer Rugaber

#### **Publications:**

Eberbach, C., Hmelo-Silver, C.E., and Jordan, R. (2012). Multiple Trajectories For Understanding Ecosystems. In *Proceedings International Conference Of The Learning Sciences 2012*.

Hmelo-Silver, C.E., Jordan, R., and Sinha, S. (In Press). Seeing To Understand: Using Visualizations To Understand Learning In Technology-Rich Learning Environments. In R. Luckin, J. Underwood, N. Winters, P. Goodyear, B. Grabowski, and S. Puntambekar (Eds.). *Handbook Of Design In Educational Technology*.

Honwad, S. Hmelo-Silver, C.E., Jordan, R., Sinha, S., Eberbach, C., Goel, A., and Rugaber, S. (2011). Learning About Ecosystems In A Computer Supported Collaborative Learning Environment. In H. Spada, G. Stahl, N. Miyake, N. Law (Eds.). *CSCL2011: Connecting Research To Practice, Volum II.* (pp. 982-983). International Society For The Learning Sciences.

Vattam, S.S., Goel, A.K., Rugaber, S., Hmelo-Silver, C.E., Jordan, R., Gray, S., and Sinha, S. (2011). Understanding Complex Natural Systems By Articulating Structure-Behavior-Function Models. *Educational Technology and Society*, *14*: 66-81.

#### R305A090281

**Promoting Science among English Language Learners (P-SELL): Efficacy and Sustainability** 

University of Miami Lee, Okhee Randall Penfield

Project Website: http://sites.education.miami.edu/psell/for-p-sell-teachers/

**Publications:** 

# R305A090288

Academic Achievement in Limited English Proficient Students: A Multivariate Latent Growth Modeling Analysis of Predictors, Mediators, and Moderators

Lake Forest College Guglielmi, Sergio

#### **Publications:**

Guglielmi, R.S. (2012). Math and Science Achievement In English Language Learners: Multivariate Latent Growth Modeling Of Predictors, Mediators, and Moderators. *Journal of Educational Psychology*, 104(3): 580-602.

**Cosmic Chemistry: Engaging Summer Learning for High School Students** 

Mid-continent Research for Education and Learning (McREL) Mackety, Dawn

**Publications:** 

# R305A090527

Spatial Temporal Mathematics at Scale: An Innovative and Fully Develoed Paradigm to Boost Math Achievement Among All Learners

University of California, Irvine Martinez, Michael

#### **Publications:**

Tran, N.A., Schneider, S., Duran, L., Conley, A., Richland, L., Burchinal, M., and ... Martinez, M.E. (2012). The Effects Of Mathematics Instruction Using Spatial Temporal Cognition On Teacher Efficacy and Instructional Practices. *Computers In Human Behavior*, 28(2): 340-349.

#### R305A090528

<u>Applications of Intelligent Tutoring Systems (ITS) to Improve the Skill Levels of Students with Deficiencies in Mathematics</u>

University of Memphis Hu, Xiangen

Related IES Projects: <u>Center for the Study of Adult Literacy (CSAL)</u>: <u>Developing Instructional Approaches Suited to the Cognitive and Motivational Needs for Struggling Adults</u> (R305C120001)

#### **Publications:**

Mo, L., Yang, F., Hu, X., Calaway, F., and Nickey, J. (2011). ACT Test Performance By Advanced Placement Students In Memphis City Schools. *The Journal Of Educational Research*, 104(5): 354-359.

Mo, L., Yang, F., and Hu, X. (2011). An Empirical Examination Of IRT Information For School Climate Surveys. *Educational Research and Evaluation*, *17*(1): 33-45.

## R305A090549

<u>Promoting Robust Understanding of Genetics with a Cognitive Tutor that Integrates</u> <u>Conceptual Learning with Problem Solving</u>

Carnegie Mellon University Corbett, Albert

#### **Publications:**

Baker, R.S.J.d. (2010). Mining Data for Student Models. In R. Nkambou et al. (Eds.), *Advances in intelligent tutoring systems*, *SCI 308* (pp. 323-337). Springer Berlin Heidelberg.

Baker, R.S.J.d., Gowda, S.M., and Corbett, A.T. (2011). Automatically Detecting a Student's Preparation for Future Learning: Help Use is Key. In *Proceedings of the 4th International Conference on Educational Data Mining* (pp. 179-188).

Baker, R.S.J.d., Gowda, S.M., and Corbett, A.T. (2011). Towards Predicting Future Transfer of Learning. In G. Biswas et al. (Eds.), *Proceedings of 15<sup>th</sup>International Conference on Artificial Intelligence in Education 2011* (pp. 23-30). Springer Berlin Heidelberg.

Corbett, A., MacLaren, B., Wagner, A., Kauffman, L., Mitchell, A., and Baker, R.S.J.d. (2013). Enhancing Robust Learning Through Problem Solving in the Genetics Cognitive Tutor. In *Proceedings of the Thirty-fifth Annual Meeting of the Cognitive Science Society* (pp. 2094-2099).

Corbett, A., MacLaren, B., Wagner, A., Kauffman, L., Mitchell, A., and Baker, R.S.J.d. (2013). Differential Impact of Learning Activities Designed to Support Robust Learning in the Genetics Cognitive Tutor. In K. Yacef et al. (Eds.), *Proceedings of AIED 2013, LNAI 7926* (pp. 319-328). Springer Berlin Heidelberg.

# 2010

# R305A100069

**Embedded Assessments Using the ChemCollective Virtual Lab** 

WestEd Timms, Michael Jodi Davenport and David Yaron

Project Website: http://www.chemvlab.org/home/index.php

#### **Publications:**

Davenport, J. L., Rafferty, A., Timms, M. J., Yaron, D., and Karabinos, M. (2012). ChemVLab+: Evaluating a Virtual Lab Tutor for High School Chemistry. *The Proceedings of the 2012 International Conference of the Learning Sciences*.

#### R305A100116

**National Randomized Control Trial of Everyday Mathematics** 

Southwest Educational Development Corporation Vaden-Kiernan, Michael Geoffrey Borman

Project Website: <a href="http://research.sedl.org/ocr-em/">http://research.sedl.org/ocr-em/</a>

#### **Transforming Algebra Assignments**

Strategic Education Research Partnership Institute Donovan, Mary Suzanne Julie Booth, Kenneth Koedinger, Andrew Elliot, and Juliana Paré-Blagoev

# **Publications:**

Augustine, A.A., Larsen, R.J., and Elliot, A.J. (2013). Affect Is Greater Than, Not Equal to, Condition: Condition and Person Effects in Affective Priming Paradigms. *Journal of Personality*, 81(4): 355-364.

#### R305A100181

# <u>Improving Mathematics Achievement through Active Student Participation in Mathematics Classrooms</u>

University of California, Los Angeles Webb, Noreen Megan Franke and Marsha Ing

#### **Publications:**

Ing, M., and Webb, N.M. (2012). Characterizing Mathematics Classroom Practice: Impact Of Observation and Coding Choices. *Educational Measurement: Issues and Practice*, 31(1): 14-26.

Turrou, A.C. and Fernandez, C.H. (Accepted). Mathematical Proficiency and Perseverance In Action: The Case Of Maria and Andrew. *Journal Of Mathematics Education At Teachers College*.

Webb, N.M., Franke, M.L., Ing, M., Wong, J., Fernandez, C.H., Shin, N., and Turrou, A.C. (2013). Engaging With Others' Mathematical Ideas: Interrelationships Among Student Participation, Teachers Instructional Practices, and Learning. Special Issue Of *International Journal Of Educational Research*.

Webb, N.M., Franke, M.L., Turrou, A.C., and Ing, M. (In Press). Self-Regulation and Learning In Peer-Directed Small Groups. *British Journal Of Educational Psychology*.

Webb, N.M., Franke, M.L., Turrou, A.C., and Ing, M. (In Press). An Exploration Of Teacher Practices In Relation To Profiles Of Small-Group Dialogue. In Resnick, L. B., Asterhan C. S. C. and Clarke, S. (Eds). *Socializing Intelligence Through Academic Talk and Dialogue*. American Educational Research Association Publications.

# R305A100234

# An Adaptive Testing System for Diagnosing Sources of Mathematics Difficulties

Georgia Institute of Technology

Embretson, Susan

Bruce Walker, John Poggio, Neal Kingston, and Edward Meyen

#### Publications:

Embretson, S.E. and Yang, X. (2013). A Multicomponent Latent Trait Model For Diagnosis. *Psychometrika*, 78: 14-36.

Embretson, S.E. (In Press). Multicomponent Models. In Van Der Linden, W. and Hambleton, R. (Eds.). *Handbook Of Item Response Theory*: Second Edition. New York: Taylor and Francis Inc.

**Establishing the Validity and Diagnostic Capacity of Facet-Based Science Assessments** 

SRI International DeBarger, Angela Louis DiBello, James Minstrell

Project Website: <a href="http://ctl.sri.com/projects/displayProject.jsp?Nick=facet">http://ctl.sri.com/projects/displayProject.jsp?Nick=facet</a>

Publications:

#### R305A100518

<u>Creating Cross-Grade Assessments of the Development of Core Algebraic Constructs</u>
Education Testing Service
Bauer, Malcolm

Publications:

# R305A100692

<u>Learning Progressions in Middle School Science Instruction and Assessment</u> University of California, Berkeley

Wilson, Mark

Project Website: <a href="http://bearcenter.berkeley.edu/projects/LPS/">http://bearcenter.berkeley.edu/projects/LPS/</a>

Publications:

# R305A100714

**Toward High School Biology: Helping Middle School Students Make Sense of Chemical Reactions** 

American Association for the Advancement of Science (AAAS) Roseman, Jo Ellen

**Do Professional Communities Improve K-16 Curricula Mastery and Augment Mathematics Achievement?** 

University of North Carolina, Charlotte Moller, Stephanie Elizabeth Stearns and Roslyn Mickelson

#### **Publications:**

Moller, S., Mickelson, R., Stearns, E., Banerjee, N., and Bottia, M. (2013). Collective pedagogical teacher culture and mathematics achievement: Differences by race, ethnicity, and socioeconomic status. *Sociology Of Education*, 86(2): 174-194.

#### R305A100909

<u>Argument-Driven Inquiry in the Middle and High School Laboratory—The Refinement and Further Development of a New Instructional Model</u>

Florida State University Sampson, Victor Sherry Southerland; Donna Ellen Granger

Project Website: http://adi.lsi.fsu.edu/

#### **Publications:**

Enderle, P., Grooms, J., Campbell, H., and Bickel, R. (Accepted). Cross---Disciplinary Writing: Scientific Argumentation, The Common Core, and The ADI Model. Submitted To *Science Scope*.

Sampson, V., Enderle, P. and Walker J. (2011). The Development and Validation Of The Assessment Of Scientific Argumentation In The Classroom (ASAC) Observation Protocol: A Tool For Evaluation How Students Participate In Scientific Argumentation. In M. Kilne (Ed.), *Perspectives In Scientific Argumentation: Theory, Practice, and Research* (pp. 235-264). New York, NY: Springer.

Sampson, V., Enderle, P., Grooms, J., and Witte, S. (2013). Writing To Learn and Learning To Write During The School Science Laboratory: Helping Middle and High School Students Develop Argumentative Writing Skills As They Learn Core Ideas. *Science Education 97*(5): 643-670.

Sampson, V., Grooms, J., and Enderle, P. (Accepted). Argumentation In Science and Science Education. Submitted To *The Science Teacher*.

# **The Connected Chemistry Curriculum**

University of Illinois at Chicago Stieff, Mike Philip DeShong

Project Website: <a href="http://connchem.org/">http://connchem.org/</a>

#### **Publications:**

Stieff, M. (2011). Fostering Representational Competence Through Argumentation With Multi-Representational Displays. *Proceedings Of The 9th International Conference On Computer-Supported Collaborative Learning* (Vol. 1, pp. 288-295). Mahwah, NJ: Erlbaum.

Stieff, M. (2011). <u>Improving Representational Competence Using Multi-Representational Learning Environments</u>. *Journal Of Research In Science Teaching*, 48(10): 1137-1158.

# 2011

# R305A110188

Longitudinal Study of a Successful Scaling-Up Project: Extending TRIAD

State University of New York, Buffalo Clements, Douglas

Grant Transferred to: University of Denver, Award Number R305A120813

Related IES Projects: <u>Scaling Up TRIAD</u>: <u>Teaching Early Mathematics for Understanding with</u> Trajectories and Technologies (R305K051057)

**Publications:** 

#### R305A110358

<u>Learning of Ratio and Proportion Problem-Solving Using Schema-Based Instruction:</u> **Efficacy and Sustainability** 

Regents of the University of Minnesota Jitendra, Asha Jon Star (Harvard University)

Project Website: http://www.cehd.umn.edu/EdPsych/MARS/About.html

Related IES Projects: Enhancing the Mathematical Problem Solving Performance of Sixth Grade Students Using Schema-based Instruction (R305K060002)

Focused and Coherent Elementary Mathematics: Japanese Curriculum Resources for U.S. <u>Teachers</u>

Mills College

Lewis, Catherine

Rebecca Perry (Mills College), Akihiko Takahashi (GER Lab, Inc.), Makoto Yoshida (Global Education Resources), and Tad Watanabe (Math Horizon)

Related IES Projects: <u>Japanese Structured Problem-Solving As a Resource for U.S. Elementary</u> Mathematics Teachers: Program Development and Testing (R305A110491)

**Publications:** 

# R305A110685

**Data Modeling Supports the Development of Statistical Reasoning** 

Vanderbilt University

Lehrer, Richard

Mark Lipsey (Vanderbilt University) and Mark Wilson (University of California, Berkeley)

Project Website: <a href="http://modelingdata.org/">http://modelingdata.org/</a>

Related IES Projects: <u>Assessing Data Modeling and Statistical Reasoning</u> (R305K060091) and <u>Innovative Computer-Based Formative Assessment via a Development, Delivery, Scoring, and Report-Generative System</u> (R305A120217)

Publications:

#### R305A1100621

Scientific Validation of a Set of Instruments Measuring Fidelity of Implementation (FOI) of Reform-Based Science and Mathematics Instructional Materials

University of Chicago

Kim, Dae

Amy Cassata-Widera and Jeanne Century

Project Website: <a href="http://researcherswithoutborders.org/projects/measuring-enactment">http://researcherswithoutborders.org/projects/measuring-enactment</a>

# 2012

# R305A120045

Efficacy Study of a Pre-Algebra Supplemental Program in Rural Mississippi Schools Mid-continent Research for Education and Learning (McREL)

Beesley, Andrea

**Publications:** 

# R305A120138

The Development and Validation of an Assessment Instrument to Study the Progression of Understanding of Ideas about Energy from Elementary School through High School

American Association for the Advancement of Science (AAAS) Herrmann Abell, Cari

George DeBoer

**Publications:** 

# R305A120184

**Investigation of the Efficacy of the JUMP Program of Mathematics Instruction** 

The Hospital for Sick Children Tannock, Rosemary Bruce Ferguson

**Publications:** 

# R305A120217

<u>Innovative Computer-Based Formative Assessment via a Development, Delivery, Scoring, and Report-Generative System</u>

University of California, Berkeley

Wilson, Mark

Richard Lehrer (Vanderbilt University)

Related IES Projects: <u>Assessing Data Modeling and Statistical Reasoning</u> (R305K060091) and Data Modeling Supports the Development of Statistical Reasoning (R305A110685)

A Randomized Study of the Efficacy of a Two-Year Mathematics Intervention for At-Risk Pre-Kindergarten and Kindergarten Students

WestEd

Starkey, Prentice

Alice Klein; Scott Baker and Ben Clarke (University of Oregon)

Related IES Projects: <u>Early Learning in Mathematics: A Prevention Approach</u> (R305K040081), <u>Early Learning in Mathematics: Efficacy in Kindergarten Classrooms</u> (R305A080114), <u>A Longitudinal Study of the Effects of a Pre-Kindergarten Mathematics Curriculum on Low-Income Children's Mathematical Knowledge</u> (R305J020026), <u>Scaling Up the Implementation of a Pre-Kindergarten Mathematics Curriculum in Public Preschool Programs</u> (R305K050186) and Closing the SES Related Gap in Young Children's Mathematical Knowledge (R305A080188)

**Publications:** 

#### R305A120390

**SimScientists Assessment System** 

WestEd

Quellmalz, Edys

Barbara Buckley, Mark Loveland, Matt Silberglitt, and Daniel Brenner

Related IES Projects: <u>SimScientists</u>: <u>Interactive Simulation-Based Science Learning</u>

Environments (R305A080614)

Publications:

# R305A120778

The Development of an Intelligent Pedagogical Agent for Physical Science Inquiry Driven by Educational Data Mining

Worcester Polytechnic Institute

Gobert, Janice

Related IES Projects: ASSISTment Meets Science Learning (AMSL) (R305A090170)

Project Website: http://sling.org/

#### Publications:

Gobert, J., Sao Pedro, M., Baker, R.S., Toto, E., and Montalvo, O. (2012). Leveraging Educational Data Mining For Real Time Performance Assessment Of Scientific Inquiry Skills Within Microworlds, *Journal Of Educational Data Mining*, *15*(4): 153-185.

Gobert, J., Sao Pedro, M., Raziuddin, J., ad Baker, R. (Accepted). From Log Files To Assessment Metrics For Science Inquiry Using Educational Data Mining. To Appear In *Journal Of The Learning Sciences*.

Gobert, J. (in press). Microworlds. In Gunstone, R. (Ed.) Encyclopedia Of Science Education. Springer.

Sao Pedro, M., Baker, R., and Gobert, J. (in press). Incorporating Scaffolding and Tutor Context Into Bayesian Knowledge Tracing To Predict Inquiry Skill Acquisition. To Appear In *Proceedings Of The 6th International Conference On Educational Data Mining*. Memphis, TN.

Gobert, J., Koedinger, K. and Raziuddin, J. (in press). Auto-Scoring Discovery and Confirmation Bias In Interpreting Data During Science Inquiry In A Microworld. To Appear In *Proceedings Of AI In Ed.* 

Sao Pedro, M., Baker, R., and Gobert, J. (2013). What Different Kinds Of Stratification Can Reveal About The Generalizability Of Data-Mined Skill Assessment Models. In *Proceedings Of The 3rd Conference On Learning Analytics and Knowledge*. Leuven, Belgium.

# 2013 R305A130160

**SimScientists Model Progressions** 

WestEd

Quellmalz, Edys

Barbara Buckley, Mark Loveland, Daniel Brenner

Related IES Projects: <u>SimScientists: Interactive Simulation-Based Science Learning</u> Environments (R305A080614)

# MIDDLE AND HIGH SCHOOL REFORM

# 2006

# R305R060022

Study of the Efficacy of North Carolina's Learn and Earn Early College High School Model

University of North Carolina, Greensboro Edmunds, Julie

#### **Publications:**

Edmunds, J. A., Bernstein, L., Glennie, E., Willse, J., Arshavsky, N., Unlu, F., Bartz, D., Silberman, T., Scales, W.D. and Dallas, A. (2010). Preparing Students For College: The Implementation and Impact Of The Early College High School Model. *Peabody Journal Of Education*, 85: 348-364.

Edmunds, J.A. (2012). Early Colleges: Redesigning High School For College Readiness. *New Directions For Higher Education*, 158: 81-90.

Edmunds, J.A., Bernstein, L., Unlu, F., Glennie, E., Willse, J., Smith, A. and Arshavsky, N. (2012). Expanding The Start Of The College Pipeline: Ninth Grade Findings From An Experimental Study Of The Impact Of The Early College High School Model. *Journal Of Research On Educational Effectiveness*, *5*:2, 136-159.

Edmunds, J.A.; Willse, J.; Arshavsky, N.; and Dallas, A. (in press). Mandated Engagement: The Impact Of Early College High Schools. *Teachers College Record*.

#### R305R060059

<u>Comprehensive Evaluation of the Effects of District-Wide High School Curriculum Reform on Academic Achievement and Attainment in Chicago</u>

University of Chicago Allensworth, Elaine

#### **Publications:**

Journal Articles

Allensworth, E., Nomi, T., Montgomery, N., and Lee, V. (2009). College Preparatory Curriculum For All: Academic Consequences Of Requiring Algebra and English I For Ninth Graders In Chicago, *Educational Evaluation and Policy Analysis*, *31* (4): 367-391.

Nomi, T, and Allensworth, E. (2009). "Double-Dose" Algebra As An Alternative Strategy To Remediation: Effects On Students' Academic Outcomes, *Journal Of Research On Educational Effectiveness*, 2: 111-148.

Lee, V.E., and Ready, D.D. (2009). U.S. High School Curriculum: Three Phases Of Contemporary Research and Reform. *The Future Of Children*, Vol.19/No. 1: 135-156

Nomi, T., and Allensworth, E.. (2012). Sorting and Supporting: Why Double-Dose Algebra Led To Better Test Scores But More Course Failure Through Changes In Classroom Composition, Climate and Instruction. *American Education Ressearch Journal*. Published Online 27 December 2012.

Nomi, T. (2012). Unintended Consequences For High-Skill Students Of An Algebra-For-All Policy: The Effects On Classroom Academic Composition and Students' Academic Outcomes. *Educational Evaluation and Policy Analysis* Outcomes. Published Online Before Print July 31, 2012.

#### Reports and Book Chapters

Coca, V., Johnson, D.W., Thomas Kelly-Kemple, T. Williams, N.O., Roderick, M.R. and Moragne, K. (in press). *Working To My Potential: The Secondary and Postsecondary Experiences Of CPS Students In The International Baccalaureate Diploma Programme*. Chicago, IL: Consortium On Chicago School Research At The University Of Chicago.

Nomi, T. and Allensworth, E.. (2011). Double-Dose Algebra As A Strategy For Improving Mathematics Achievement Of Struggling Students: Evidence From Chicago Public Schools. In R. Gersten and R. Newman-Gonchar (Ed.) *Response To Intervention In Mathematics*. Baltimore, MD: Brookes Publishing Co.

Roderick, M. and Stoker G.(2010). Bringing Rigor To The Study Of Rigor: Are Advanced Placement Courses A Useful Approach To Increasing College Access and Success For Urban and Minority Youths? *Handbook Of Research On Schools, Schooling, and Human Development*, Chapter 14: 216-237.

Roderick, M. Coca, V., Moeller, E and Kelley-Kemple, T.. (2013). *From High School To The Future: The Challenge Of Senior Year In The Chicago Public Schools*. Consortium On Chicago School Research, Chicago, Illinois.

Montgomery, N. and Allensworth, E. . (2010). *Passing Through Science: The Effects Of Raising Graduation Requirements In Science On Course-Taking and Academic Achievement In Chicago*. Consortium On Chicago School Research, Chicago, Illinois.

#### R305R060062

# Assessing the Effectiveness of the Small High School Initiative

University of Chicago Schanzenbach, Diane

#### **Publications:**

Barrow, L., Claessens, A., and Schanzenbach, D.W. (2013). *The Impact of Chicago's Small High School Initiative* (No. w18889). National Bureau of Economic Research.

#### R305R060096

The Impact of Exit Exam Performance on High School and Post-Secondary Outcomes
University of Florida
Clark, Damon

#### **Publications:**

Clark, D., and See, E. (2011). The Impact of Tougher Education Standards: Evidence from Florida. *Economics of Education Review*, 30(6), 1123-1135.

# 2007

# R305B070131

**Implications of High School Course Availability and Course-Taking** 

Florida State University Iatarola, Patrice

#### **Publications:**

Conger, D., Long, M.C., and Iatarola, P. (2009). Explaining Race, Poverty and Gender Disparities In Advanced Course-Taking. *Journal Of Policy Analysis and Management*, 28(4): 555-576.

Iatarola, P., Conger, D. and Long, M.C. (2011). Determinants Of High Schools' Advanced Course Offerings. *Educational Evaluation and Policy Analysis*, 33(3): 340-359.

Long, M. C., Conger, D., and Iatarola, P. (2012). Effects Of High School Course-Taking On Secondary and Postsecondary Success. *American Educational Research Journal*, 49(2): 285-322.

Long, M.C., Iatarola, P. and Conger, D. (2009). Explaining Gaps In Readiness For College-Level Math: The Role Of High School Courses. *Education Finance and Policy*, 4(1): 1-33.

#### R305B070702

A Randomized Efficacy Trial of Academically Enhanced Rigorous Career Academies: Studying the Impact of the National Academy Foundation (NAF) Model

**MDRC** 

Kemple, James

#### **Publications:**

Visher, M.G., Altuna, J.N., and Safran, S. (2013). Making It Happen: How Career Academies Can Build College and Career Exploration Programs. *MDRC* 

# 2008

# R305A080127

The Consequences for High School Students of Failing State Exit Exams: Evidence from Massachusetts

President and Fellows of Harvard College, Graduate School of Education Murnane, Richard

Related IES Projects: <u>Intended and Unintended Consequences of State High-Stakes Testing:</u> <u>Evidence from Standards-Based Reform in Massachusetts</u> (R305E100013)

#### **Publications:**

Papay, J.P., Murnane, R.J., and Willett, J.B. (2008). The Consequences of High School Exit Examinations for Struggling Low-Income Urban Students: Evidence from Massachusetts. National Bureau of Economic Research Working Paper 14186.

Papay, J.P, Murnane, R.J. and Willett, J.B. (2010). <u>The Consequences of High School Exit Examinations for Low-Performing Urban Students: Evidence from Massachusetts.</u> *Education Evaluation and Policy Analysis*, *32* (1): 5–23.

### R305A080211

A Curriculum Engagement: Micro-Process Interventions in Middle and High School to Improve Attendance, Behavior, Achievement and Grade Promotion for At-Risk Ninth Graders

Johns Hopkins University Legters, Nettie

#### **Publications:**

Davis, M., Herzog, L. and Legters, N. (2013). Organizing Schools To Address Early Warning Indicators (Ewis): Common Practices and Challenges. *Journal Of Education For Students Placed At Risk, 18:* 84-100.

Herzog, L., Davis, M.H., and Legters, N. (2012). *Learning What It Takes: An Initial Look At How Schools Are Using Early Warning Indicator Data and Collaborative Response Teams To Keep All Students On Track To Success.* Baltimore, MD: Everyone Graduates Center.

Mac Iver, M. A. and Mac Iver, D.J. (2009). *Beyond The Indicators: An Integrated School-Level Approach To Dropout Prevention*. Arlington, VA: The Mid-Atlantic Equity Center, George Washington University Center For Equity and Excellence In Education.

#### R305A080522

**Do Small Schools Improve Student Performance in Large Urban Districts? Evidence from New York City** 

New York University Stiefel, Leanna Amy Ellen Schwartz

#### **Publications:**

Iatarola, P., Schwartz, A.E., Stiefel, L., and Chellman, C. (2008). Small Schools, Large Districts: Small School Reform and New York City's Students, *Teachers College Record*, 110 (9): 1837-1878.

Schwartz, A.E., Stiefel, L. and Wiswall, M. (forthcoming). Do Small Schools Improve Performance in Large, Urban Districts? Causal Evidence from New York City. *Journal of Urban Economics*.

# R305A080544

**<u>High School Preparation for College Completion</u>**Johns Hopkins University

Balfanz, Robert

# 2010

# R305A100423

Bringing Rigor and Relevance to High School Reform Through Thematic Curricula Institute for Research and Reform in Education (IRRE) Connell, James

# NATIONAL RESEARCH AND DEVELOPMENT CENTERS

# 2004

# R305A040043

National Research and Development Center on School Choice

Vanderbilt University

Goldring, Ellen

Marisa Cannata, Dale Ballou, Timothy C. Caboni, John Cronin, Ellen B. Goldring, Ruth Green, James W. Guthrie, William G. Howell, Caroline M. Hoxby, Michael Kamil, Tom Loveless, Paul Peterson, Claire Smrekar, Matthew G. Springer, Herbert J. Walberg, Kenneth K. Wong.

Center Website: <a href="http://www.vanderbilt.edu/schoolchoice/">http://www.vanderbilt.edu/schoolchoice/</a>

#### **Publications:**

Journal Articles

Berends, M., Goldring, E., Stein, M., and Cravens, X. (2010). <u>Instructional Conditions in Charter Schools and Students' Mathematics Achievement.</u> *American Journal of Education*, *116*(3): 303–335.

Berends, M., Langevin, W. and Springer, M.G. (2007). Editors' Preface, Special Issue on Policy, Politics, and Organization of School Choice. *Peabody Journal of Education* 82(2–3): 179–183.

Berry, C., and Howell, W. (2007). Accountability and Local Elections: Rethinking Retrospective Voting. *Journal of Politics*, 69(3): 844–858.

Campbell, D.E., West, M.R., and Peterson, P.E. (2005). <u>Participation in a National Means-Tested School Voucher Program.</u> *Journal of Policy Analysis and Management, 24*(3): 611–620.

Cannata, M. (2011). Charter Schools and the Teacher Job Search. *Journal of School Choice: International Research and Reform*, *5*(1): 111-133.

Chingos, M., Henderson, M. and West, M.R. (2010). Grading Schools. Education Next, 10(4): 60-67.

Howell, W.G. (2006) <u>Switching Schools? A Closer Look at Parents' Initial Interest in and Knowledge</u> about the Choice Provisions of No Child Left Behind. *Peabody Journal of Education*, 81(1): 140–179.

Howell, W.G., Peterson, P.E., and West, M.R. (2009). <u>The Persuadable Public</u>. *Education Next*, 9(4): 20–29

Howell, W.G. and West, M.R. (2008). Is the Price "Right"? Education Next, 8(3): 36–41.

Howell, W.G. and West, M.R. (2009). Educating the Public. Education Next, 9(3): 40–47.

Howell, W.G., Peterson, P.E., and West, M.R. (2007). <u>What Americans Think about Their Schools: The 2007 "Education Next"-PEPG Survey</u>. *Education Next*, 7(4):12–26.

Howell, W.G., West, M.R., and Peterson, P.E. (2008). <u>The 2008 "Education Next"-PEPG Survey of Public Opinion</u>. *Education Next*, 8(4): 12–26.

Hoxby, C.M., and Murarka, S. (2008). Charter Achievement in New York City. *Education Next*, 8(3): 54–61.

Hoxby, C.M. and Rockoff, J. (2005) <u>Findings from the City of Big Shoulders: Younger Students Learn More in Charter Schools.</u> *Education Next*, *5*(4) 52–58.

Loveless, T. (2010). How Well Are American Students Learning? With Sections On NAEP Trends, The Persistence School Test Scores, And Conversion Charter Schools. 2009 Brown Center Report, 2(4): 1–32.

Peterson, P. (2008). School Vouchers in the United States: Productivity in the Public and Private Sectors. *Zeitschrift für Erziehungswissenschaft—Journal of Educational Science, ZfE, 11*(2): 253–267.

Peterson, P.E. and Chingos, M.M. (2009). <u>For-Profit and Nonprofit Management in Philadelphia Schools</u>. *Education Next*, *9*(2): 64–70.

Peterson, P.E. (2007). The Case for Curriculum-Based, External Examinations Which Have Significant Consequences for Students. *Peabody Journal of Education 82* (4): 645–666.

Peterson, P.E. and West, M.R. (2006). <u>Is Your Child's School Effective? Don't Rely on NCLB to Tell You.</u> *Education Next*, 6(4): 76–80.

Peterson, P.E., and Llaudet, E. (2007). <u>The NCES Private-Public School Study: Findings Are Other than They Seem</u>. *Education Next*, *7*(1): 75–79.

Peterson, P.E., Howell, W.G., and West, M.R. (2008). The 2008 Education Next and PEPG Survey of Public Opinion. *Education Next*, 8(1): 13–26.

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**National Research Center on Rural Education Support** 

University of North Carolina, Chapel Hill Farmer, Thomas Lynne Vernon-Feagans, Wallace Hannum

Center Website: http://www.nrcres.org/

Related IES Projects: <u>The Targeted Reading Intervention: A Web-Based Professional</u>
<u>Development Program Targeting K-1 Classroom Teachers and Their Struggling Readers</u>
(R305A100654)

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# R305A040082

# **Center for Data-Driven Reform in Education**

Johns Hopkins University Slavin, Robert

Center Website: <a href="http://www.cddre.org/">http://www.cddre.org/</a>

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# 2005

# R305A050004

Center for Research on Evaluation, Standards, and Student Testing (CRESST)

University of California, Los Angeles

Baker, Eva

Center Website: http://www.cse.ucla.edu/

# **Publications:**

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# R305A050056

<u>Center for Research on the Educational Achievement and Teaching of English Language</u> <u>Learners (CREATE)</u>

University of Houston

Francis, David

Diane August, Coleen Carlson, Jana Echevarria, David Francis, Elfrieda Hiebert, Sylvia Linan-Thompson, Catherine Richards, Deborah Short, Catherine Snow, Sharon Vaughn.

Center Website: <a href="http://www.cal.org/create/">http://www.cal.org/create/</a>

**Publications:** 

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# 2006 R305A060010

**National Center for Postsecondary Research** 

Columbia University, Teachers College Bailey, Thomas

Center Website: <a href="http://www.postsecondaryresearch.org/">http://www.postsecondaryresearch.org/</a>

Related IES Projects: <u>Improving Information and Access to Financial Aid: Expanding the</u> FAFSA Experiment (R305A120280)

# **Publications:**

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#### **Briefs**

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# R305A060021

# **National Center for Research on Early Childhood Education**

University of Virginia Pianta. Robert

Center Website: http://www.ncrece.org/

#### **Publications:**

#### **Journal Articles**

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National Center for Performance Incentives (Policy-NCPI)
Vanderbilt University
Guthrie, James W.

Center Website: http://www.performanceincentives.org/

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# National Research Center on the Gifted and Talented

University of Connecticut Renzulli, Joseph

Center Website: <a href="http://www.gifted.uconn.edu/">http://www.gifted.uconn.edu/</a>

# **Publications:**

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# **Center for Analysis of Longitudinal Data in Education Research (CALDER)**

American Institutes for Research Hannaway, Jane

Center Website: <a href="http://www.caldercenter.org/">http://www.caldercenter.org/</a>

# **Publications:**

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<u>Disadvantaged Urban Schools? NBER Working Paper No. 15816.</u> Cambridge, MA: National Bureau of Economic Research.

Harris, D.N., and Sass, T.R. (2007). *Teacher Training, Teacher Quality and Student Achievement*. CALDER Working Paper 3.

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Horng, E., Kalogrides, D., and Loeb, S. (2009). *Principal Preferences and the Unequal Distribution of Principals Across Schools*. CALDER Working Paper 36.

Jargowsky, P., and El Komi, M. (2009). <u>Before or After the Bell?: School Context and Neighborhood</u> <u>Effects on Student Achievement</u>. CALDER Working Paper 28.

Koedel, C., and Podgursky, M. (2012). *Teacher Pension Systems, the Composition of the Teaching Workforce, and Teacher Quality*. CALDER Working Paper 72.

Koedel, C., Grissom, J.A., Ni, S., and Podgursky, M. (2011). *Pension-Induced Rigidities in the Labor Market for School Leaders*. CALDER Working Paper 62

Koedel, C., Grissom, J.A., Ni, S., and Podgursky, M. (2012). *Pension-Induced Rigidites in the Labor Market for School Leaders*. CALDER Working Paper 67.

Koedel, C., Ni, S., and Podgursky, M. (2012). Who Benefits from Pension Enhancements? CALDER Working Paper 76.

Ladd, H.F. (2009). *Teachers' Perceptions of Their Working Conditions: How Predictive of Policy-Relevant Outcomes*? CALDER Working Paper 33.

Ladd, H.F., and Lauen, D.L. (2009). *Status vs. Growth: The Distributional Effects of School Accountability Policies*. CALDER Working Paper 21.

Master, B., Loeb, S., Whitney, C., and Wyckoff, J. (2012). *Different Skills: Identifying Differentially Effective Teachers of English Language Learners*. CALDER Working Paper 68.

Mihaly, K., McCaffery, D., Sass, T.R., and Lockwood, J.R. (2012). Where You Come From or Where You Go? Distinguishing Between School Quality and the Effectiveness of Teacher Preparation Program Graduates. CALDER Working Paper 63

Özek, U. (2009). *The Effects of Open Enrollment on School Choice and Student Outcomes*. CALDER Working Paper 26.

Podgursky, M., and Ehlert, M. (2007). <u>Teacher Pensions and Retirement Behavior: How Teacher Pension Rules Affect Behavior, Mobility, and Retirement</u>. CALDER Working Paper 5.

Ronfeldt, M., Loeb, S., and Wyckoff, J. (2012). *How Teacher Turnover Harms Student Achievement*. CALDER Working Paper 70.

Rouse, C.E., Hannaway, J., Goldhaber, D., and Figlio, D. (2007). *Feeling the Florida Heat?: How Low-Performing Schools Respond to Voucher and Accountability Pressure*. CALDER Working Paper 13.

Sass, T.R., (2011). Certification Requirements and Teacher Quality. CALDER Working Paper 64.

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Vigdor, J.L., and Ladd, H.F. (2010). <u>Scaling the Digital Divide: Home Computer Technology and Student Achievement</u>. CALDER Working Paper 48.

Xu, Z., and Nichols, A. (2010). New Estimates of Design Parameters for Cluster Randomization Studies: Findings From North Carolina and Florida. CALDER Working Paper 43.

Xu, Z., Hanaway, J., and D'Souza, S. (2009). <u>Student Transience in North Carolina: The Effect of School Mobility on Student Outcomes Using Longitudinal Data</u>. CALDER Working Paper 22.

Xu, Z., Hannaway, J., and Taylor, C. (2008). *Making a Difference?: The Effects of Teach for America in High School*. CALDER Working Paper 17 Revised.

Xu, Z., Ozek, U., and Corritore, M. (2012). *Portability of Teacher Effectiveness Across School Settings*. CALDER Working Paper 77.

Zhu, P., Jacob, R., Bloom, H., and Xu, Z. (2011). Designing and Analyzing Studies that Randomize Schools To Estimate Intervention Effects on Student Academic Outcomes Without Classroom-Level Information. CALDER Working Paper 61.

#### **Research Notes:**

Sass, T.R., and Cartwright, S. (2008). *High School Diploma and GED Attainment in Florida*. CALDER Research Note 1.

# **Policy Briefs:**

Boyd, D., Lankford, H., Loeb, S., Rockoff, J., and Wyckoff, J. (2008). <u>The Narrowing Gap in New York City Teacher Qualifications and Implications for Student Achievement in High-Poverty Schools.</u> CALDER Policy Brief 6.

Goldhaber, D., and Hansen, M. (2010). <u>Using Performance on the Job to Inform Teacher Tenure Decisions.</u> CALDER Policy Brief 10.

Goldhaber, D., and Hansen, M. (2008). <u>Assessing the Potential of Using Value-Added Estimates of Teacher Job Performance for Making Tenure Decisions.</u> CALDER Policy Brief 3.

Hanushek, E.A., and Rivkin, S.G. (2010). *Using Value-Added Measures of Teacher Quality*. CALDER Policy Brief 9.

Hanushek, E.A., and Rivkin, S.G. (2008). <u>Do Disadvantaged Urban Schools Lose Their Best Teachers?</u> CALDER Policy Brief 7.

Haskins, R., and Loeb, S. A. (2007). *Plan to Improve the Quality of Teaching In American Schools*. The Future of Children Policy Brief.

O'Brien, D. (2008). *The Texas FERPA Story*. CALDER Policy Brief 5.

Rice, J.K. (2010). *Principal Effectiveness and Leadership in an Era of Accountability: What Research Says.* CALDER Policy Brief 8.

Rivkin, S.G. (2007). Value-Added Analysis and Education Policy. CALDER Policy Brief 1.

Sass, T.R. (2008). *The Stability of Value-Added Measures of Teacher Quality and Implications for Teacher Compensation Policy*. CALDER Policy Brief 4.

# 2008

# R305C080009

National Research and Development Center on Cognition and Science Instruction
21st Century Partnership for STEM Education

Merlino, F. Joseph

Center Website: http://www.cogscied.org/

**Publications:** 

# R305C080015

National Research and Development Center on Instructional Technology: Center for Advanced Technology in Schools

University of California, Los Angeles Baker, Eva

Center Website: <a href="http://cats.cse.ucla.edu/">http://cats.cse.ucla.edu/</a>

# **Publications:**

Baker, E.L. (2014). Learning and Assessment: Twenty-First Century Skills and Cognitive Readiness. In *Teaching and Measuring Cognitive Readiness* (pp. 53-70). Springer US.

Chung, G.K., and Delacruz, G.C. (2014). Cognitive Readiness for Solving Equations. In *Teaching and Measuring Cognitive Readiness* (pp. 135-148). Springer US.

Holyoak, K.J. (2012). Analogy and Relational Reasoning. *The Oxford Handbook of Thinking and Reasoning*, 234-259.

Kerr, D., and Chung, G.K.. (2012). Identifying Key Features of Student Performance in Educational Video Games and Simulations Through Cluster Analysis. *Journal of Educational Data Mining*, 4(1), 144-182.

Kerr, D., and Chung, G K. (2013). Identifying Learning Trajectories in an Educational Video Game. In *Intelligence Application Workshops: Part I: Big Data meet Complex Models* (p. 20).

Lee, H.S., Thompson, B.J., Holyoak, K.J., and Stigler, J.W. (2010). Learning Inter-Related Concepts in Mathematics from Videogames. In*Proceedings of the 9th International Conference of the Learning Sciences-Volume 2* (pp. 445-446). International Society of the Learning Sciences.

Mislevy, R., Behrens, J.T., Dicerbo, K.E., and Levy, R. (2012). Design and Discovery in Educational Assessment: Evidence-Centred Design, Psychometrics, and Educational Data Mining. *Journal of Educational Data Mining*, *4*(1), 11-48.

Mislevy, R.J., Behrens, J.T., Dicerbo, K.E., Frezzo, D.C., and West, P. (2012). Three Things Game Designers Need to Know About Assessment. In *Assessment in Game-Based Learning* (pp. 59-81). Springer New York.

O'Neil, H.F., Chung, G.K., Kerr, D., Vendlinski, T.P., Buschang, R. E., and Mayer, R.E. (2014). Adding self-explanation prompts to an educational computer game. *Computers in Human Behavior*, *30*, 23-28.

Richland, L.E., Stigler, J.W., and Holyoak, K. J. (2012). Teaching the Conceptual Structure of Mathematics. *Educational Psychologist*, 47(3), 189-203.

Rupp, A.A., Levy, R., DiCerbo, K., Sweet, S., Crawford, A.V., Caliço, T., ... and Behrens, J. (2012). Putting ECD into Practice: The Interplay of Theory and Data in Evidence Models Within a Digital Learning Environment. *Journal of Educational Data Mining* 4(1): 49-110.

Stripling, R., and Chang, G. (2013). Brain Activity Based Assessment (BABA). In *Foundations of Augmented Cognition* (pp. 390-398). Springer Berlin Heidelberg.

#### R305C080022

National Research and Development Center on Instructional Technology: Possible Worlds Education Development Center, Inc.

Brunner, Cornelia

**Publications:** 

# 2009 R305C090022

**The National Center for Research on Rural Education** 

University of Nebraska, Lincoln Sheridan, Susan

Project Website: <a href="http://r2ed.unl.edu/">http://r2ed.unl.edu/</a>

# **Publications:**

Semke, C.A., and Sheridan, S.M. (2012). Family-School Connections in Rural Educational Settings: A Systematic Review of the Empirical Literature. *School Community Journal*, 22(1), 21-47.

#### R305C090023

# National Center for Teacher Effectiveness: Validating Measures of Effective Math Teaching

President and Fellows of Harvard College, Graduate School of Education Kane, Thomas

Center Website: <a href="http://www.gse.harvard.edu/ncte/default.php">http://www.gse.harvard.edu/ncte/default.php</a>

# **Publications:**

#### Journal Articles

Herlihy, C., Karger, E., Pollard, C., Hill, H.C., Kraft, M.A., Williams, M. and Howard, S. (in press). State and Local Efforts to Investigate the Validity and Reliability of Scores from Teacher Evaluation Systems. *Teachers College Record*.

Hill, H.C., Charalambous, C. Y. and Kraft, M. (2012). When Rater Reliability is not Enough: Observational Systems and a Case for the G-study. *Educational Researcher*, 41(2), 56-64.

Hill, H.C., Charalambous, C. Y., McGinn, D., Blazar, D., Beisiegel, M., Humez, A. Kraft, M., Litke, E. and Lynch, K. (2012). Validating Arguments for Observational Instruments: Attending to Multiple Sources of Variation. *Educational Assessments*, 17(2-3), 88-106.

Hill, H.C., and Grossman, P. (2013). Learning from Teacher Observations: Challenges and Opportunities Posed by New Teacher Evaluation Systems. *Harvard Educational Review*, 83(2), 371-384.

Staiger, D. O. and Rockoff, J. E. (2010). Searching for Effective Teachers with Imperfect Information. *Journal of Economic Perspectives*, 24(3): 97–117.

Taylor, E. S., & Tyler, J. H. (2012). The Effect of Evaluation on Teacher Performance. *The American Economic Review*, 102(7), 3628-3651.

#### **Working Papers**

Cascio, E.U. and Staiger, D.O. (2012). *Knowledge, Tests, and Fadeout in Educational Interventions (No. w18038)*. National Bureau of Economic Research.

Taylor, E. S., and Tyler, J.H. (2011). The Effect of Evaluation on Teacher Performance: Evidence from Longitudinal Student Achievement Data of Mid-career Teachers. *NBER Working Paper #16877*. Retrieved March 2011: <a href="http://www.nber.org/papers/w16877.pdf">http://www.nber.org/papers/w16877.pdf</a>

# 2010

#### R305C100023

National Research and Development Center on Scaling Up Effective Schools
Vanderbilt University
Smith, Thomas

Project Website: http://www.scalingupcenter.org

**Publications:** 

#### R305C100024

National Research and Development Center on Cognition and Mathematics Instruction
WestEd
Schneider, Steve

#### **Publications:**

Booth, J.L., and Davenport, J.L. (2013). The Role of Problem Representation and Feature Knowledge in Algebraic Equation-Solving. *The Journal of Mathematical Behavior*, *32*: 415-423.

# 2011 R305C110011

The Center for Analysis of Postsecondary Education and Employment Columbia University, Teachers College Bailey, Thomas

Center Website: <a href="http://capseecenter.org">http://capseecenter.org</a>

#### **Publications:**

Deming, D. J., Goldin, C., & Katz, L. F. (2011). *The For-Profit Postsecondary School Sector: Nimble Critters or Agile Predators?* (No. w17710). National Bureau of Economic Research.

Deming, D., Goldin, C., & Katz, L. (2013). For-Profit Colleges. The Future of Children, 23(1), 137-163.

# 2012

#### R305C120001

Center for the Study of Adult Literacy (CSAL): Developing Instructional Approaches
Suited to the Cognitive and Motivational Needs for Struggling Adults
Georgia State University

Greenberg, Daphne

Center Website: <a href="http://csal.gsu.edu">http://csal.gsu.edu</a>

Related IES Projects: Coh-Metrix: Automated Cohesion and Coherence Scores to Predict Text Readability and Facilitate Comprehension (R305G020018), An Implementation of Vicarious Learning with Deep-Level Reasoning Questions in Middle School and High School Classrooms (R305H050169), Acquiring Research Investigative and Evaluative Skills (ARIES) for Scientific Inquiry (R305B070349), DeepTutor: An Intelligent Tutoring System Based on Deep Language and Discourse Processing and Advanced Tutoring Strategies (R305A100875), The Writing Pal: An Intelligent Tutoring System that Provides Interactive Writing Strategy Training (R305A080589), Guru: A Computer Tutor that Models Expert Human Tutors (R305A080594), Applications of Intelligent Tutoring Systems (ITS) to Improve the Skill Levels of Students with Deficiencies in Mathematics (R305A090528), and Multiple-Component Remediation for Struggling Middle School Readers (R324G060005)

**Publications:** 

#### R305C120008

National Center for Analysis of Longitudinal Data in Education Research (CALDER)
American Institutes for Research
Hannaway, Jane

Center website: <a href="http://www.caldercenter.org/">http://www.caldercenter.org/</a>

# POSTSECONDARY AND ADULT EDUCATION

# 2007

#### R305B070077

<u>Developing a Program of Postsecondary Academic Instruction Over the Corrections</u> <u>Learning Network</u>

Correctional Education Association Steurer, Stephen

#### **Publications:**

Meyer, S. J. (2011). Factors Affecting Student Success in Postsecondary Academic Correctional Education Programs. *Journal of Correctional Education*, 132-164.

Meyer, S. J., and Randel, B. (2013). The Impact of an Associate's Degree Program for Incarcerated Students: A Randomized Trial of the Correctional Education Association College of the Air Program. *Community College Review*, *41*(3), 223-248.

Meyer, S.J., Fredericks, L., Borden, C.M., and Richardson, P.L. (2010). <u>Implementing Postsecondary Academic Programs in State Prisons: Challenges and Opportunities</u>. *Journal of Correctional Education*, 61(2): 148–183.

#### R305B070377

The Effects of Institutional Practices on Postsecondary Trajectories—Matriculation, Persistence, and Time-to-Degree

University of California, Davis Kurlaender, Michal

#### **Publications:**

Howell, J.S., Kurlaender, M., and Grodsky, E. (2010). <u>Postsecondary Preparation and Remediation:</u> <u>Examining the Effect of the Early Assessment Program at California State University.</u> *Journal of Policy Analysis and Management, 29* (4): 726–748.

#### R305B070581

The Effects of College Remediation on Students' Academic and Labor Market Outcomes
University of Texas at Dallas
McFarlin Jr., Isaac

# **Publications:**

Martorell, Paco and McFarlin, Isaac Jr. (2011). Help or Hindrance? The Effects of College Remediation on Academic and Labor Market Outcomes. *The Review of Economics and Statistics*, 93(2): 436-454.

# 2008

## R305A080066

**Evaluation of the SOURCE Program: An Intervention to Promote College Application and Enrollment Among Urban Youth - Primary Outcomes** 

**Berkeley Policy Associates** 

Bos, Johannes

**Publications:** 

#### R305A080096

<u>Improving Postsecondary Preparation in Urban Public High Schools: An Evaluation of AVID in Chicago</u>

University of Chicago Roderick, Melissa Stephen Raudenbush

**Publications:** 

#### R305A080109

<u>Domain-Specific Assessment: Bringing the Classroom into Community College</u> Accountability

SRI International

Yarnall, Louise

Geneva Haertel

**Publications:** 

#### R305A080132

<u>Getting Qualified High School Seniors to Enroll in College: An Experimental Study in Vermont</u>

National Bureau of Economic Research

Sacerdote, Bruce

Scott Carrell (University of California, Davis)

#### **Publications:**

Sacerdote, B. (2012). When the Saints go Marching out: Long-Term Outcomes for Student Evacuees From Hurricanes Katrina and Rita. *American Economic Journal: Applied Economics*, 4(1), 109-135.

<u>Using High School Transcript Data to Improve Student Access to Four-Year Colleges</u>
MPR Associates, Inc.
Levesque, Karen

Publications:

# R305A080620

<u>Transitions through Higher Education: Evidence on the Mismatch Hypothesis</u>
University of Texas at Dallas
McFarlin Jr., Isaac

**Publications:** 

# 2009

#### R305A090049

<u>A Longitudinal Study of International Baccalaureate Students: Postsecondary Education Access, Performance, and Persistence</u>

University of Pennsylvania May, Henry

**Publications:** 

#### R305A090122

Making the Connection: Engaging and Retaining Young Adults in Postsecondary Education

University of Minnesota Johnson, David

**Publications:** 

#### R305A090204

Simplification and Incentives: A Randomized Experiment for Increasing College Savings
National Bureau of Economic Research
Long, Bridget Terry

<u>Causes and Consequences of Public Subsidies in Higher Education: Evidence from Community College Districts</u>

University of Michigan McFarlin, Jr., Isaac

**Publications:** 

# 2010

#### R305A100066

**Evaluating the Long-Term Effects and the Costs of Two Community College Interventions**MDRC

Weiss, Michael

#### Publications:

Sommo, C., Mayer, A.K., Rudd, T., and Cullinan, D. (2012). *Commencement Day: Six-Year Effects of a Freshman Learning Community Program at Kingsborough Community College*. New York: MDRC. Retrieved from

http://www.schoolfundingforresults.org/TRUSD\_SSFR%20implementation%20report\_2010-11 FINAL.pdf

Weiss, M., Brock, T., Sommo, C., Rudd, T., and Turner, M. (2011). *Serving Community College Students on Probation: Four-Year Findings from Chaffey College's Opening Doors Program*. New York: MDRC. Retrieved from <a href="http://www.mdrc.org/sites/default/files/full">http://www.mdrc.org/sites/default/files/full</a> 506.pdf

# R305A100120

**Evaluation of a Random Assignment Intervention to Improve College Choice Among High Achieving, Low Income Students** 

Board of Trustees of the Leland Stanford Junior University Hoxby, Caroline

Sarah Turner (University of Virginia)

#### **Publications:**

Hoxby, Caroline M., and Christopher Avery. *The Missing" One-Offs": The Hidden Supply of High-Achieving, Low Income Students*. No. w18586. National Bureau of Economic Research, 2012.

#### R305A100369

<u>Causes and Consequences of Public Subsidies in Higher Education: Evidence from Community College Districts</u>

University of Michigan McFarlin Jr., Isaac

**Evaluating the Effects of Basic Skills Mathematics Placement on Academic Outcomes of Community College Students** 

University of Southern California Melguizo, Tatiana Johannes Bos

**Publications:** 

#### R305A100625

The Efficacy of Personal Response Systems (Clickers) as Learning Tools: A Multidisciplinary, Large-Scale, Empirical Evaluation
University of Massachusetts, Dartmouth
Shapiro, Amy

**Publications:** 

#### R305A100971

Ready or Not? California's Early Assessment Program and the Transition to College University of California, Davis Kurlaender, Michal Eric Grodsky and Jessica Howell

#### 2011

#### R305A110085

# <u>Follow-Up to the Study of the Efficacy of North Carolina's Early College High School</u> Model

University of North Carolina, Greensboro Edmunds, Julie Larry Bernstein (RTI International)

#### **Publications:**

Edmunds, J.A. (2012). Early Colleges: Redesigning High School For College Readiness. *New Directions for Higher Education, 158*: 81-90.

Edmunds, J.A., Bernstein, L., Unlu, F., Glennie, E., Willse, J., Smith, A. and Arshavsky, N. (2012). Expanding the start of the college pipeline: Ninth grade findings from an experimental study of the impact of the early college high school model. *Journal of Research on Educational Effectiveness*, 5:2, 136-159.

Edmunds, J.A.; Willse, J.; Arshavsky, N.; Dallas, A. (in press). Mandated Engagement: The Impact Of Early College High Schools. *Teachers College Record*.

**Evaluating the Success of Undergraduates in the U-Pace Intervention to Improve Academic Achievement for All Postsecondary Education Students** 

University of Wisconsin at Milwaukee

Reddy, Diane

Raymond Flemming, Laura Pedrick, Rodney Swain, Simone Conceicao, Cindy Walker

#### **Publications:**

Reddy, D.M., Fleming, R., and Pedrick, L.E. (2012). Increasing Student Success: Evaluating The Effectiveness Of U-Pace Instruction At UWM. *EDUCAUSE Seeking Evidence of Impact Case Study. Milwaukee: EDUCAUSE Learning Initiative. Retrieved from:* 

http://www.educause.edu/library/resources/increasing-student-success-evaluating-effectiveness-u-pace-instruction-uwm

Reddy, D.M., Fleming, R., Jirovec, D.L., Pedrick, L.E., Pfeiffer, H.M., and Stoiber, L.C. (in press). Increasing Student Success In Higher Education Through U-Pace Instruction. *Higher Learning Commission 28th Annual Collection of Papers on Self-study and Institutional Improvement.* 

Reddy, D.M., Fleming, R., Pedrick, L.E., Jirovec, D.L., Pfeiffer, H.M., Ports, K.A., Barnack-Tavlaris, J. L., Helion, A.M., and Swain, R.A. (2013). U-Pace Instruction: Improving Student Success By Integrating Content Mastery and Amplified Assistance. *Journal of Asynchronous Learning Networks*, 17 (1): 147 – 154.

#### R305A110204

<u>Performance-Based Scholarship Demonstration — An Alternative Financial Aid Program to Incentivize Academic Success</u>

MDRC Richburg-Hayes, Lashawn Thomas Brock

**Publications:** 

#### R305A110288

Strategizing for College: A Game-based Approach to Increasing College Access
University of Southern California
Tierney, William

#### **Publications:**

B. Tierney, Z. Corwin, G. Ragusa, and Fullerton, T. (Eds.) (in Press): *Postsecondary Play: The Role of Games and Social Media in Higher Education* to be published by John Hopkins Press

<u>State Merit Aid Program and Student College Choice and Success: Evaluating the Efficacy of Florida's Bright Futures Program</u>

Florida State University

Hu, Shouping

Liang Zhang (Pennsylvania State University)

#### **Publications:**

Hu, S., Trengove, M., and Zhang, L. (2012). Toward A Better Understanding Of The Effects Of State Merit Aid Programs. In J. Smart and M. Paulsen (Eds.), *Higher Education: Handbook Of Theory and Research*, *Vol. 27* (291-334). New York: Springer.

Zhang, L., Hu, S., and Sensenig, V. (Forthcoming). The Effect Of Florida's Bright Futures Program On College Enrollment and Degree Production: An Aggregated-Level Analysis. *Research In Higher Education*.

#### R305110809

<u>Promoting College Enrollment among Disadvantaged Students: A Randomized Controlled Trial of Two Low-Cost Interventions</u>

**EDBoost Education Corporation** 

Chin, Tiffani

Meredith Phillips and Sara Reber (University of California, Los Angeles)

**Publications:** 

# 2012

#### R305A120189

<u>A Cognitive Science Investigation of Struggling Adult Readers' Skills</u> Ohio State University

McKoon, Gail

**Publications:** 

#### R305A120280

Improving Information and Access to Financial Aid: Expanding the FAFSA Experiment

National Bureau of Economic Research

Bettinger, Eric

Bridget Terry Long (NBER/Havard University) and Phillip Oreopoulos (NBER/University of Toronto)

Related IES Projects: National Center for Postsecondary Research (R305A060010)

Factors Associated with Postsecondary Success for Students with Disabilities SRI International Newman, Lynn

Publications:

# 2013

# R305A130125

<u>Using Computer-Assisted Instruction to Accelerate Students through Developmental Math:</u>

<u>An Impact Study of Modularization and Compression</u>

MDRC

Visher, Mary Michael Weiss

**Publications:** 

# R305A130448

A Process View of Reading Among Adult Literacy Learners
Board of Trustees of the University of Illinois
Stine-Morrow, Elizabeth
Kara Federmeier

**Publications:** 

#### R305A130641

**Project Families4College (F4C)** 

Texas A&M University Gonzalez, Jorge Dominique T. Chlup

# PRESCHOOL CURRICULUM EVALUATION RESEARCH

# 2002

#### R305J020014

Evaluation of Pre-Kindergarten Curricula in Head Start and Public School Settings University of Texas Health Science Center at Houston Program Landry, Susan H.

#### **Publications:**

Assel, M., Landry, S.H., Swank, P.R., and Gunnewig, S. (2007). An Evaluation of Curriculum, Setting, and Mentoring on the Performance of Children Enrolled in Pre-Kindergarten. *Reading and Writing: An Interdisciplinary Journal*, 20: 463–494.

Assel, M.A., Landry, S.H., and Swank, P.R. (2007). Are Early Childhood Classrooms Preparing Children to Be School Ready?: The CIRCLE Teacher Behavior Rating Scale. In L. Justice and C. Vukelich (Eds.), *Achieving Excellence in Preschool Literacy Instruction* (pp. 120–135). New York: The Guilford Press.

Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008–2009). U.S. Department of Education, National Center for Education Research. Washington, DC: U.S. Government Printing Office.

#### R305J020020

Focus in Early Childhood Curricula: Helping Children Transition to School Vanderbilt University
Farran, Dale

#### **Publications:**

Dickinson, D., Watson, B., and Farran, D. (2008). It's in the Details: Approaches to Describing and Improving Preschool Classrooms. In C. Vukelich and L. Justice (Eds.), *Achieving Excellence in Preschool Literacy Instruction* (pp. 136–162). New York: Guilford Press.

Farran, D.C. (2007). *Is Education the Way Out of Poverty? A Reflection on the 40th Anniversary of Head Start* (With Commentaries by James King and Bernard L. Charles), Center for Research on Child Development and Learning, No. 3.

Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008–2009). U.S. Department of Education, National Center for Education Research. Washington, DC: U.S. Government Printing Office.

Farran, D.C., Aydogan, K., and Lipsey, M.W. (2005). Preschool Classroom Environments and the Quantity and Quality of Children's Literacy and Language Behaviors. In David K. Dickinson and Susan B. Neuman (Eds.), *Handbook of Early Literacy Research* (Vol. 2, pp. 257–268). New York: Guilford Press.

Varol, F., and Farran, D. (2006). <u>Early Mathematical Growth: How to Support Young Children's Mathematical Development</u>. *Early Childhood Education Journal*, *33* (6): 381-387.

A Longitudinal Study of the Effects of a Pre-Kindergarten Mathematics Curriculum on Low-Income Children's Mathematical Knowledge

University of California, Berkeley Starkey, Prentice

Related IES Projects: <u>Scaling Up the Implementation of a Pre-Kindergarten Mathematics</u> <u>Curriculum in Public Preschool Programs</u> (R305K050186), <u>Closing the SES Related Gap in Young Children's Mathematical Knowledge</u> (R305A080188) and <u>A Randomized Study of the Efficacy of a Two-Year Mathematics Intervention for At-Risk Pre-Kindergarten and Kindergarten Students</u> (R305A120262)

#### **Publications:**

Klein, A., Starkey, P., Sarama, J., Clements, D.H., and Iyer, R. (2008). Effects of a Pre-Kindergarten Mathematics Intervention: A Randomized Experiment. *Journal of Research on Educational Effectiveness*, *1*: 155–178.

Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008–2009). U.S. Department of Education, National Center for Education Research. Washington, DC: U.S. Government Printing Office.

Sarama, J., Clements, D.H., Starkey, P., Klein, A., and Wakeley, A. (2008). Scaling up the Implementation of a Pre-Kindergarten Mathematics Curriculum: Teaching for Understanding with Trajectories and Technologies. *Journal of Research on Educational Effectiveness, 1* (2): 89–119.

Starkey, P. (2007). Fostering the Learning of Mathematics in Low-Income Children. *Dialog Briefs*, 10 (2): 1–7. Alexandria, VA: National Head Start Association.

Starkey, P., and Klein, A (Eds.). (in press). Curricular Intervention in Public Preschool Programs. New York, NY: Teachers College Press.

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Impact of the Project Approach on Children's School Readiness and School Achievement

Purdue University Powell, Douglas

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# R305J020039

**Evaluation of the Effects of Creative Curriculum on Classroom Quality and Child Outcomes in Head Start** 

University of North Carolina, Charlotte Lambert, Richard G.

#### **Publications:**

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#### R305J020040

**Evaluation of the Early Literacy and Learning Model (ELLM): a Curriculum and Instructional Support System** 

University of North Florida Fountain, Cheryl

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University of New Hampshire Priest, Jeff

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# 2003

#### R305J030037

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#### R305J030084

# **Evaluation of the Language-Focused Curriculum**

University of Virginia Justice, Laura

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#### R305J030093

Evaluating the Effectiveness of Preschool Literacy Curriculum for Children At-Risk Florida State University Lonigan, Christopher

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#### R305J030103

Project Construct: A Catalyst for Early Achievement University of Missouri Thomburg, Kathy

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Success for All Foundation Chambers, Bette

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# READING AND WRITING

# 2002

#### R305G020006

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University of Pittsburg
Perfetti, Charles
Isabel Beck, Margaret McKeown

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#### R305G020018

<u>Coh-Metrix: Automated Cohesion and Coherence Scores to Predict Text Readability and Facilitate Comprehension</u>

University of Memphis McNamara, Danielle Art Graesser, Max Louwerse

Project Website: <a href="http://CohMetrix.Memphis.edu">http://CohMetrix.Memphis.edu</a>

Related IES Project: <u>Center for the Study of Adult Literacy (CSAL)</u>: <u>Developing Instructional Approaches Suited to the Cognitive and Motivational Needs for Struggling Adults</u> (R305C120001)

#### **Publications:**

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#### R305G020027

Research on and With Novel Educational Technologies for Comprehension

University of Colorado Landauer, Thomas

#### **Publications:**

Dennis, S. (2005). An Exemplar-Based Approach to Unsupervised Parsing. In B.G. Bara, L. Barsalou and M. Bucciarelli (Eds.), Proceedings of the 27th Annual Conference of the Cognitive Science Society (pp. 583-588). Hillsdale, NJ: Erlbaum.

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#### R305G020041

Reading To Learn: Investigating General and Domain Specific Supports In A Technology-**Rich Environment With Diverse Readers Learning From Informational Text** CAST, Inc.

Dalton, Bridget

Annemarie Palincsar (University of Michigan)

#### R305G020057

The Story Read Aloud Project: The Development Of An Innovative Instructional
Approach To Promote Comprehension and Vocabulary In First Grade Classrooms

Pacific Institutes for Research

Baker, Scott

David Chard, Lana Edwards Santoro

Related IES Projects: <u>The Read Aloud Curriculum in First Grade Classrooms: Furthering Our</u> Understanding of Immediate and Long-Term Impacts and Causal Influences (R305G050216)

#### **Publications:**

Santoro, L.E., Chard, D.J., Howard, L., and Baker, S.K. (2008). <u>Making the Very Most of Classroom Read-Alouds to Promote Comprehension and Vocabulary</u>. *Reading Teacher*, *61*(5): 396–408.

#### R305G020075

**Group Discussions as a Mechanism for Promoting High-Level Comprehension of Text** 

Ohio State University

Wilkinson, Ian

Anna Soter and Karen Murphy (Pennsylvania State University)

Related IES Projects: <u>Dialogic Teaching: Professional Development in Classroom Discussion to Improve Students' Argument Literacy</u> (R305A120634) and <u>Quality Talk: Developing Students' Discourse to Promote Critical-Analytic Thinking, Epistemic Cognition, and High-Level Comprehension</u> (R305A130031)

#### **Publications:**

Murphy, P.K., Wilkinson, I.A.G., Soter, A.O., Hennessey, M.N., and Alexander, J.F. (2009). <u>Examining the Effects of Classroom Discussion on Students' High-Level Comprehension of Text: A Meta-Analysis</u>. *Journal of Educational Psychology*, *101*(3): 740–764.

Murphy, P.K. (2007). <u>The Eye of the Beholder: The Interplay of Social and Cognitive Components in Change</u>. *Educational Psychologist*, *42*: 41–53.

Soter, A.O. (2007). The Use of Discussion as a Pedagogical Tool in the University Context. In Donnermeyer, J. (Ed.), *Talking About Teaching: Essays by Members of the Ohio State University Academy of Teaching* (pp. 30–43). Columbus, Ohio.

Soter, A.O. (2008). Engaging Readers: Variations on Reader Response. In Soter, A.O., Faust, M., and Rogers, T (Eds.), *Interpretive Play: Using Critical Perspectives to Teach Young Adult Literature* (pp.33–36). Norwood, MA: Christopher-Gordon Publishers.

Soter, A.O., Connors, S., and Rudge, L. (2008). Use of a Coding Manual When Providing a Meta-Interpretation of Internal-Validity Mechanisms and Demographic Data Used in Qualitative Research. *Journal of Ethnographic and Qualitative Research*, 2: 269–280.

Soter, A.O., Wilkinson, I.A.G., Murphy, P.K., Rudge, L., Reninger, K., and Edwards, M. (2008). What the Discourse Tells Us: Talk and Indicators of High-Level Comprehension. *International Journal of Educational Research*. 47 (6): 372-391.

Wilkinson, I.A.G. (2009). Discussion Methods. In E.M., anderman and L.H., anderman (Eds.), *Psychology of Classroom Learning: An Encyclopedia* (pp. 330–336). Detroit, MI: Gale/Cengage. Wilkinson, I.A.G., and Hye Son, E. (2009). Questioning. In E.M., anderman and L.H, anderman (Eds.), *Psychology of Classroom Learning: An Encyclopedia* (pp. 723–728). Detroit, MI: Gale/Cengage.

Wilkinson, I.A.G., Soter, A.O., and Murphy, P.K. (2010). Developing a Model of Quality Talk About Literary Text. In M.G. McKeown and L. Kucan (Eds.), *Bringing Reading Research to Life: Essays in Honor of Isabel L. Beck* (pgs. 142–169). New York, NY: Guilford Press.

# 2003

#### R305G030070

Improving Comprehension and Writing Through Reasoned Argumentation

University of Illinois Anderson, Richard

Related IES Projects: Mindful Instruction of Nonmainstream Children (R305A080347)

#### Publications:

Dong, T., Anderson, R.C., Kim, I., and Li, Y. (2008). <u>Collaborative Reasoning in China and Korea</u>. *Reading Research Quarterly*, *43*: 400–424.

Jadallah, M., Miller, B., Anderson, R.C., Nguyen-Jahiel, K., Archodidou, A., Zhang, J., and Grabow, K. (2009). Collaborative Reasoning About a Science and Public Policy Issue. In M. McKeown and L. Kucan (Eds.), *Bringing Reading Researchers to Life: Essays in Honor of Isabel L. Beck.* New York, NY: Guilford Press.

Jadallah, M., Anderson, R.C., Nguyen-Jahiel, K., Miller, B. W., Kim, I., Kuo, L., and ... Wu, X. (2011). Influence Of A Teacher's Scaffolding Moves During Child-Led Small-Group Discussions. *American Educational Research Journal*, *48*(1): 194-230.

Li, Y., Anderson, R.C., Nguyen-Jahiel, K., Dong, T., Archodidou, A., Kim, I., Kuo, L.J., Clark, A.M., Wu, X., Jadallah, M., and Miller, B. (2007). Emergent Leadership in Children's Discussion Groups. *Cognition and Instruction*, *25*(1): 75–111.

Lin, T.J., and Anderson, R.C. (2008). Reflections on Collaborative Discourse, Argumentation, and Learning. *Contemporary Educational Psychology*, *33*: 443–448.

Lin, T., Anderson, R.C., Hummel, J.E., Jadallah, M., Miller, B.W., Nguyen-Jahiel, K., and ... Dong, T. (2012). Children's Use Of Analogy During Collaborative Reasoning. *Child Development*, *83*(4):1429-1443.

Nguyen-Jahiel, K., Anderson, R., Waggoner, M., and Rowell, B. (2007). Using Literature Discussions to Reason through Real Life Dilemmas: A Journey Taken by One Teacher and Her Fourth-Grade Students. In R. Horowitz (Ed.), *Talking Texts: How Speech and Writing Interact in School Learning*. Hillsdale, NJ: Erlbaum.

Reznitskaya, A., and Anderson, R.C. (2007). Assessing Argumentation in Rich, Natural Contexts. *Informal Logic*, 26: 175–198.

Reznitskaya, A., Anderson, R.C., and Kuo, L.J. (2007). <u>Teaching and Learning Argumentation</u>. *Elementary School Journal*, *107*: 449–472.

Reznitskaya, A., Anderson, R.C., Dong, T., Li, Y., Kim, I.H., and Kim, S.Y. (2008). Learning to Think Well: Applications of Argument Schema Theory. In C.C. Block and S. Parris (Eds.), *Comprehension Instruction: Research-Based Best Practices* (Vol. 2, pp. 196–213). New York, NY: Guilford Publishing.

Reznitskaya, A., Kuo, L.J., Clark, A.M., Miller, B., Jadallah, M., Anderson, R.C., and Nguyen-Jahiel, K. (2009). <u>Collaborative Reasoning: A Dialogic Approach to Group Discussions</u>. *Cambridge Journal of Education*, *39*(1): 29–48.

Reznitskaya, A., Kuo, L.J., Glina, M., and Anderson, R.C. (2009). <u>Measuring Argumentative Reasoning:</u> <u>What's Behind the Numbers?</u> *Learning and Individual Differences, 19*(2): 219–224.

Wu, X., Anderson, R.C., Nguyen-Jahiel, K., and Miller, B. (2013). Enhancing Motivation and Engagement Through Collaborative Discussion. *Journal Of Educational Psychology*, 105(3): 622-632.

#### R305G030283

# **Teaching Elementary Students To Comprehend Expository Text**

Columbia University, Teachers College Williams, Joanna

Related IES Projects: An Intervention to Enhance Expository Test Comprehension Via Text Structure Instruction for Primary-Grade At-Risk Students (R324G060039) and An Intervention to Improve the Comprehension of Primary-grade At-risk Students by Providing Text Structure Instruction Embedded in Social Studies Content (R324A110095)

#### **Publications:**

Williams, J.P., Nubla-Kung, A.M., Pollini, S., Stafford, K.B., Garcia, A., Snyder, A.E. (2007). Teaching Cause-Effect Text Structure through Social Studies Content to At-Risk Second Graders. Journal of Learning Disabilities, 40(2): 111–120.

Williams, J.P. (2007). Literacy in the Curriculum: Integrating Text Structure and Content Area Instruction. In D.S. McNamara (Ed.), Reading Comprehension Strategies: Theories, Interventions, and Technologies (pp. 199–219). Mahwah, N.J.: Erlbaum.

#### R305G030072

<u>Intelligent Tutoring Using The Structure Strategy To Improve Reading Comprehension Of Middle School Students</u>

Pennsylvania State University Meyer, Bonnie Kay Wijekumar and Wendy Middlemiss

Related IES Projects: Efficacy and Replication Research on the Intelligent Tutoring System for the Structure Strategy—Rural and Suburban Schools Grades 4, 5, 7, and 8 (R305A080133) and Improving Reading Comprehension of Middle Grades English Language Learners by Combining Structure Strategy with Web-Based Adaptive Tutoring for EL Learners (SWELL) (R305A120593)

Meyer, B.J.F., and Wijekumar, K. (2007). A Web-Based Tutoring System for the Structure Strategy: Theoretical Background, Design, and Findings. In D.S. McNamara (Ed.), *Reading Comprehension Strategies: Theories, Interventions, and Technologies* (pp. 347–374). Mahwah, NJ: Erlbaum.

Meyer, B.J.F., and Wijekumar, K.K. (2011). <u>Individualizing a Web-Based Structure Strategy Intervention</u> for Fifth Graders' Comprehension of Nonfiction. *Journal of Educational Psychology*, 103: 140–168.

Meyer, B.J.F., Wijekumar, K., Middlemiss, W., Higley, K., Lei, P., Meier, C., and Spielvogel, J. (2010). Web-Based Tutoring of the Structure Strategy With or Without Elaborated Feedback or Choice for Fifthand Seventh-Grade Readers. Reading Research Quarterly, 45(1): 62–92.

Wijekumar, K., and Meyer, B.J.F. (2006). Design and Pilot of a Web-Based Intelligent Tutoring System to Improve Reading Comprehension in Middle School Students. *International Journal of Technology in Teaching and Learning*, 2(1): 36–49.

Wijekumar, K., Meyer, B., and Spielvogel, J. (2005). Web-Based Intelligent Tutoring to Improve Reading Comprehension in Elementary and Middle Schools: Design, Research, and Preliminary Findings. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2005* (pp. 3206–3211). Chesapeake, VA: American Association for the Advancement of Computing Education.

Wijekumar, K., Meyer, B.J.F., Ferguson, L., and Wagoner, D. (2006). Technology Affordances: The Real Story in Research With K–12 and Undergraduate Learners. *British Journal of Educational Technology: Special Issue on Technology Effects*, *37*: 191–209.

#### R305G030104

# Origins Of Individual and Developmental Differences In Reading Comprehension Florida State University

Wagner, Richard

# **Publications:**

McBride-Chang, C., Cho, J.R., Lie, H., Wagner, R.K., Shu, H., Zhou, A., Cheuk, C., and Muse, A. (2005). Changing Models Across Cultures: Associations of Phonological Awareness and Morphological Structure Awareness With Vocabulary and Word Recognition in Second Graders From Beijing, Hong Kong, Korea, and the United States. *Journal of Experimental Child Psychology*, *92*(2): 140–160.

McBride-Chang, C., Wagner, R.K., Muse, A., Chow, B.W.Y., and Shu, H. (2005). Morphological Awareness in Children's Vocabulary Acquisition in English. *Journal of Applied Psycholinguistics*, *26*(3): 415–435.

Priya, K., and Wagner, R. K. (2009). The Roles of Fluent Decoding and Vocabulary in the Development of Reading Comprehension. In Wagner, R.K., Schatschneider, C., and Phythian-Sence, C. (Eds.), *Beyond Decoding: The Behavioral and Biological Foundations of Reading Comprehension* (pgs. 124–139). New York, NY: Guilford Press.

Tannenbaum, K.R., Torgesen, J.K., and Wagner, R.K. (2006). <u>Relationships Between Word Knowledge and Reading Comprehension in Third-Grade Children</u>. *Scientific Studies of Reading*, *10*(4): 381–398.

Wagner, R.K., and Muse, A. (2006). Short-Term Memory Deficits In Developmental Dyslexia. In T. Alloway, S. E. Gathercole (Eds.), *Working Memory and Neurodevelopmental Disorders* (pp. 41-57). New York, NY US: Psychology Press.

Wagner, R.K., Muse, A., and Tannenbaum, K. (Eds.). (2006). *Vocabulary Acquisition: Implications for Reading Comprehension*. New York, NY: Guilford Press.

Wagner, R.K., Muse, A., and Tannenbaum, K. (2006). Promising Avenues for Better Understanding Implications of Vocabulary Development for Reading Comprehension. In R.K. Wagner, A. Muse, and K. Tannenbaum, (Eds.), *Vocabulary Acquisition: Implications for Reading Comprehension* (pp. 276–292). New York, NY: Guilford Press.

Wagner, R.K., Phythian-Sence, C., and Tannenbaum, K. (2006). Vocabulary Acquisition: a Primer. In R.K. Wagner, A. Muse, and K. Tannenbaum, (Eds.), *Vocabulary Acquisition: Implications for Reading Comprehension* (pp. 1–14). New York, NY: Guilford Press.

# R305G030123

Reader-Specific Lexical Practice For Improved Reading Comprehension
Carnegie Mellon University
Callan, James

#### **Publications:**

Brown, J., and Eskenazi, M. (2006, January). Using Simulated Students for the Assessment of Authentic Document Retrieval. In *Intelligent Tutoring Systems* (pp. 685-688). Springer Berlin Heidelberg.

Brown, J. Frishkoff, G., and Eskenazi, M. (2005). Automatic Question Generation for Vocabulary Assessment. In *Proceedings of HLT/EMNLP 2005*. (pp. 819–826). Vancouver, Canada: Association for Computational Linguistics.

Brown, J., and Eskenazi, M. (2005). Student, Text and Curriculum Modeling for Reader-Specific Document Retrieval. *Proceedings of the IASTED International Conference on Human-Computer Interaction 2005*, Phoenix, AZ. <a href="http://reap.cs.cmu.edu/Papers/IASTED-HCI-05-jonbrown.pdf">http://reap.cs.cmu.edu/Papers/IASTED-HCI-05-jonbrown.pdf</a>

Brown, J., and Eskenazi, M. (2004). Retrieval of Authentic Documents for Reader-Specific Lexical Practice. In *Proceedings of Instil/ICALL Symposium 2004*. Venice, Italy. <a href="http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.68.6223andrep=rep1andtype=pdf">http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.68.6223andrep=rep1andtype=pdf</a>

Collins-Thompson, K., and Callan, J. (2005). Query Expansion Using Random Walk Models. In *Proceedings of the 14th ACM International Conference on Information and Knowledge Management* (pp. 704–711). New York, NY: ACM Press.

Collins-Thompson, K., and Callan, J. (2005). Predicting Reading Difficulty With Statistical Language Models. *Journal of the American Society for Information Science and Technology*, *56* (13): 1448–1462.

Collins-Thompson, K., and Callan, J. (2004). Information Retrieval for Language Tutoring: An Overview of the REAP Project (Poster Description). In *Proceedings of the Twenty Seventh Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*. Sheffield, UK. <a href="http://www-2.cs.cmu.edu/~kct/pubs/sigir04">http://www-2.cs.cmu.edu/~kct/pubs/sigir04</a> reap poster.pdf

Collins-Thompson, K., and Callan, J. (2004). A Language Modeling Approach to Predicting Reading Difficulty. In *Proceedings of the HLT/NAACL 2004 Conference*. Boston, MA. http://acl.ldc.upenn.edu/N/N04/N04-1025.pdf

#### R305G030140

Instruction Of Reading Comprehension: Cognitive Strategies Or Cognitive Engagement

University of Illinois

Garcia, Georgia

Barbara Taylor (University of Minnesota), David Pearson (University of California, Berkeley)

#### **Publications:**

Garcia, G.E., Pearson, P.D., Taylor, B.M., Bauer, E.B., and Stahl, K.A.D. (2011). <u>Socio-Constructivist and Political Views on Teachers' Implementation of Two Types of Reading Comprehension Approaches in Low-Income Schools</u>. *Theory Into Practice*, *50*(2): 149-156.

Stahl, K.A.D., Garcia, G.E., Bauer, E.B., Pearson, P.D., and Taylor, B.A. (2006). Making the Invisible Visible: The Development of a Comprehension Assessment System. In K.A.D. Stahl and McKenna (Eds.), *Reading Research at Work: Foundations of Effective Practice* (pp. 425–436). New York, NY: Guilford Press.

Taylor, B.M., Pearson, P.D., Garcia, G.E., Stahl, K.A.D., Bauer, E.B. (2006). Improving Students Reading Comprehension. In K.A.D. Stahl and McKenna (Eds.), *Reading Research at Work: Foundations of Effective Practice* (pp. 303–315). New York, NY: Guilford Press.

#### R305G030250

**Project VITAL: Vocabulary Intervention Targeting At-risk Learners** 

University of Connecticut Coyne, Michael

Related IES Projects: <u>Project IVI</u>: <u>Intensifying Vocabulary Intervention for Kindergarten Students at Risk of Learning Disabilities</u> (R324L060026) and <u>Project Early Vocabulary Intervention</u> (R324A110135)

#### **Publications:**

Coyne, M.D., McCoach, B., and Kapp, S. (2007). <u>Vocabulary Intervention for Kindergarten Students:</u> <u>Comparing Extended Instruction to Embedded Instruction and Incidental Exposure</u>. *Learning Disabilities Quarterly*, *30*(2): 74–88.

Zipoli, R.R., Coyne, M.D., and McCoach, D. (2011). <u>Enhancing Vocabulary Intervention for Kindergarten Students: Strategic Integration of Semantically Related and Embedded Word Review</u>. *Remedial and Special Education*, *32*(2): 131-143

# 2004

# R305G040011

Improving Adolescent Reading Comprehension: A Multi-Strategy Reading Intervention
University of Kansas
Hock, Michael

Hock, M.F., Brasseur, I.F., Deshler, D.D., Catts, H.W., Marques, J., Mark, C.A., and Wu Stribling, J. (2009). What Is the Nature of Struggling Adolescent Readers in Urban High Schools? *Learning Disability Quarterly*, 32(1): 21–38.

#### R305G040021

<u>Improving Comprehension of Struggling Readers: Connecting Cognitive Science and Educational Practice</u>

University of Minnesota Broek, Paul van den David Rapp and Kristen McMaster

#### **Publications:**

van den Broek, P., White, M.J., Kendeou, P., and Carlson, S. (2009). Reading Between the Lines: Developmental and Individual Differences in Cognitive Processes in Reading Comprehension. In R. Wagner (Ed.), *Biological and Behavioral Bases of Reading Comprehension* (pp. 107–123). Mahwah, NJ: Erlbaum.

van den Broek, P., Kendeou, P., and White, M.J. (2008). Cognitive Processes During Reading: Implications for the Use of Multimedia to Foster Reading Comprehension. In A.G. Bus and S.B. Neuman (Eds.), *Multimedia and Literacy Development: Improving Achievement for Young Learners* (pp. 57–74). New York, NY: Routledge.

Rapp, D.N. (2006). What Readers Do: Reader-Guided Processes In Discourse Comprehension. *Information Design Journal*, 14(2): 109-113.

Rapp, D.N. (2008). How Do Readers Handle Incorrect Information During Reading? *Memory and Cognition*, 36(3): 688-701.

Rapp, D.N., and Kendeou, P. (2007). Revising What Readers Know: Updating Text Representations During Narrative Comprehension. *Memory and Cognition*, *35*(8): 2019-2032.

Rapp, D.N., and Kendeou, P. (2009). <u>Noticing and Revising Discrepancies as Texts Unfold</u>. *Discourse Processes*, 46(1): 1-24.

Rapp, D.N., van den Broek, P., McMaster, K.L., Kendeou, P., and Espin, C.A. (2007). <u>Higher-Order Comprehension Processes in Struggling Readers: a Perspective for Research and Intervention</u>. *Scientific Studies of Reading*, *11*: 289–312.

Rapp, D.R., and van den Broek, P. (2005). Dynamic Text Comprehension: An Integrative View of Reading. *Current Directions in Psychological Sciences*, 14 (5): 276–279.

Tilstra, J., McMaster, K., van den Broek, P., Kendeou, P., and Rapp, D. (2009). <u>Simple but Complex:</u> <u>Components of the Simple View of Reading Across Grade Levels.</u> *Journal of Research in Reading*, *32*(4): 383–401.

#### R305G040046

# iSTART: Interactive Strategy Trainer for Active Reading and Thinking

University of Memphis McNamara, Danielle

#### **Publications:**

Bellissens, C., Jeuniaux, P., Duran, N., and McNamara, D.S. (2007). Towards a Textual Cohesion Model that Predicts Self-Explanations Inference Generation as a Function of Text Structure and Readers' Knowledge Levels. In D.S. McNamara and J.G. Trafton (Eds.), *Proceedings of the 29th Annual Conference of the Cognitive Science Society* (pp. 815–820). New York, NY: Erlbaum.

Best, R., Dockrell, J.E., and McNamara, D.S. (2004). Children's Semantic Representation of a Science Term. In K. Forbus, D. Gentner and T. Regier (Eds.), *Proceedings of the 26th Annual Conference of the Cognitive Science Society* (p. 1525). Mahwah, NJ: Erlbaum.

Best, R., Ozuru, Y., and McNamara, D.S. (2004). Self-Explaining Science Texts: Strategies, Knowledge, and Reading Skill. In Y.B. Yasmin, W.A. Sandoval, N. Enyedy, A.S. Nixon, and F. Herrera (Eds.), *Proceedings of the 6th International Conference of the Learning Sciences: Embracing Diversity in the Learning Sciences* (pp. 89–96). Mahwah, NJ: Erlbaum.

Best, R., Rowe, M.P., Ozuru, Y., and McNamara, D.S. (2005). <u>Deep-Level Comprehension of Science Texts: The Role of the Reader and the Text</u>. *Topics in Language Disorders*, *25* (1): 65–83.

Boonthum, C., Levinstein, I., and McNamara, D.S. (2007). Evaluating Self-Explanations in iSTART: Word Matching, Latent Semantic Analysis, and Topic Models. In A. Kao and S. Poteet (Eds.), *Natural Language Processing and Text Mining* (pp. 91–106). London, UK: Springer-Verlag UK.

Crossley, S.A., Dufty, D.F., McCarthy, P.M., and McNamara, D.S. (2007). Toward a New Readability: A Mixed Model Approach. In D.S. McNamara and J.G. Trafton (Eds.), *Proceedings of the 29th Annual Conference of the Cognitive Science Society* (pp. 197–202). New York, NY: Erlbaum.

Duran, N., Bellissens, C., Taylor, R., and McNamara, D.S. (2007). Qualifying Text Difficulty With Automated Indices of Cohesion and Semantics. In D.S. McNamara and J.G. Trafton (Eds.), *Proceedings of the 29th Annual Conference of the Cognitive Science Society* (pp. 233–238). New York, NY: Erlbaum.

Graesser, A.C., Hu, X., and McNamara, D.S. (2005). Computerized Learning Environments that Incorporate Research in Discourse Psychology, Cognitive Science, and Computational Linguistics. In A.F. Healy (Ed.), *Experimental Cognitive Psychology and Its Applications: Festschrift in Honor of Lyle Bourne, Walter Kintsch, and Thomas Landauer* (pp. 183–194). Washington, DC: American Psychological Association.

Jackson, G. T., Guess, R.H., and McNamara, D.S. (2010). Assessing Cognitively Complex Strategy Use In An Untrained Domain. *Topics In Cognitive Science*, 2(1): 127-137.

Kurby, C.A., Magliano, J.P., Dandotkar, S., Woehrle, J., Gilliam, S., and McNamara, D.S. (2012). Changing How Students Process and Comprehend Texts With Computer-Based Self-Explanation Training. *Journal Of Educational Computing Research*, 47(4): 429-459.

Kurby, C.A., Ozuru, Y., and McNamara, D.S. (2007). Individual Differences in Comprehension Monitoring Ability During Reading. In D.S. McNamara and J.G. Trafton (Eds.), *Proceedings of the 29th Annual Conference of the Cognitive Science Society* (pp. 413–418). New York, NY: Erlbaum.

Landauer, T., McNamara, D.S., Dennis, S., and Kintsch, W. (Eds.), (2007). *Handbook of Latent Semantic Analysis*. Mahwah, NJ: Erlbaum.

Levinstein, I.B., Boonthum, C., Pillarisetti, S.P., Bell, C., and McNamara, D.S. (2007). iSTART 2: Improvements for Efficiency and Effectiveness. *Behavior Research Methods*, 39(2): 224–232.

Louwerse, M.M., Graesser, A.C., McNamara, D.S., and Lu, S. (2009). Embodied Conversational Agents As Conversational Partners. *Applied Cognitive Psychology*, 23(9): 1244-1255.

Magliano, J.P., Millis, K.K., Ozuru, Y., and McNamara, D.S. (2007). A Multidimensional Framework to Evaluate Reading Assessment Tools. In D.S. McNamara (Ed.), *Reading Comprehension Strategies: Theories, Interventions, and Technologies* (pp. 107–136). Mahwah, NJ: Erlbaum.

Magliano, J.P., Todaro, S., Millis, K.K., Wiemer-Hastings, K., Kim, H.J., and McNamara, D.S. (2005). Changes in Reading Strategies as a Function of Reading Training: A Comparison of Live and Computerized Training. *Journal of Educational Computing Research*, 32 (2): 185–208.

McCarthy, P.M., and Jarvis, S. (2010). MTLD, vocd-D, and HD-D: A Validation Study Of Sophisticated Approaches To Lexical Diversity Assessment. *Behavior Research Methods*, 42(2): 381-392.

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McCarthy, P.M., Guess, R.H., and McNamara, D.S. (2009). The Components Of Paraphrase Evaluations. *Behavior Research Methods*, *41*(3): 682-690.

McNamara, D.S (Ed.), (2007). Reading Comprehension Strategies: Theory, Interventions, and Technologies. Mahwah, NJ: Erlbaum.

McNamara, D.S. (2010). Strategies To Read and Learn: Overcoming Learning By Consumption. *Medical Education*, 44(4), 340-346.

McNamara, D.S., and O'Reilly, T. (2009). Theories of Comprehension Skill: Knowledge and Strategies Versus Capacity and Suppression. In F. Columbus (Ed.), *Progress in Experimental Psychology Research*. Hauppauge, NY: Nova Science Publishers, Inc.

McNamara, D.S., and Shapiro, A. (2005). Multimedia and Hypermedia Solutions for Promoting Metacognitive Engagement, Coherence, and Learning. *Journal of Educational Computing Research*, *33*(1): 1–29.

McNamara, D.S., Boonthum, C., Levinstein, I.B., and Millis, K. (2007). Evaluating Self Explanations in iSTART: Comparing Word-Based and LSA Algorithms. In T. Landauer, D.S. McNamara, S. Dennis, and W. Kintsch (Eds.), *Handbook of Latent Semantic Analysis* (pp. 227–241). Mahwah, NJ: Erlbaum.

McNamara, D.S., De Vega, M., and O'Reilly, T. (2007). Comprehension Skill, Inference Making, and the Role of Knowledge. In F. Schmalhofer and C.A. Perfetti (Eds.), *Higher Level Language Processes in the Brain: Inference and Comprehension Processes* (pp.233–254). Mahwah, NJ: Erlbaum.

McNamara, D.S., Levinstein, I.B., and Boonthum, C. (2004). iSTART: Interactive Strategy Trainer for Active Reading and Thinking. *Behavioral Research Methods, Instruments, and Computers, 36* (2): 222–233.

McNamara, D.S., O'Reilly, T., Best, R., and Ozuru, Y. (2006). Improving Adolescent Students' Reading Comprehension With iSTART. *Journal of Educational Computing Research*, *34* (2): 147–171.

- McNamara, D.S., O'Reilly, T., Rowe, M., Boonthum, C., and Levinstein, I.B. (2007). iSTART: A Web-Based Tutor that Teaches Self-Explanation and Metacognitive Reading Strategies. In D.S. McNamara (Ed.), *Reading Comprehension Strategies: Theories, Interventions, and Technologies* (pp. 397–421). Mahwah, NJ: Erlbaum.
- McNamara, D.S., Ozuru, Y., Best, R., and O'Reilly, T. (2007). The 4-Pronged Comprehension Strategy Framework. In D.S. McNamara (Ed.), *Reading Comprehension Strategies: Theories, Interventions, and Technologies* (pp. 465–496). Mahwah, NJ: Erlbaum.
- Millis, K., Kim, H.J., Todaro, S. Magliano, J., Wiemer-Hastings, K., and McNamara, D.S. (2004). Identifying Reading Strategies Using Latent Semantic Analysis: Comparing Semantic Benchmarks. *Behavior Research Methods, Instruments, and Computers*, 36 (2): 213–221.
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#### R305G040049

# **Toward More Meaningful Decisions about Comprehension Instruction**

University of Pittsburgh McKeown, Margaret Isabel Beck

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McKeown, M.G., and Beck, I.L., (2009). The Role of Metacognition in Understanding and Supporting Reading Comprehension. In D.J. Hacker, J. Dunlosky, and A.C. Graesser, (Eds.), *Handbook of Metacognition in Education*. Mahwah, NJ: Lawrence Erlbaum Associates.

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#### R305G040055

# Assessing Reading Comprehension with Verbal Protocols and Latent Semantic Analysis

Northern Illinois University Magliano, Joseph Keith Millis

#### **Publications:**

Britt, M.A., Wiemer, K., Millis, K.K., Magliano, J.P., Wallace, P., and Hastings, P. (2012). Understanding and Reasoning with Text. Applied Natural Language Processing and Content Analysis: Identification, Investigation, and Resolution. IGI Global Publisher.

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#### R305G040065

**Developing Reading Comprehension Assessments Targeting Struggling Readers**Educational Testing Services

Sabatini, John

Related IES Projects: <u>Assessing Reading for Understanding: A Theory-based, Developmental Approach</u> (R305F100005)

#### **Publications:**

Deane, P., Sheehan, K. M., Sabatini, J., Futagi, Y., and Kostin, I. (2006). Differences in text structure and its implications for assessment of struggling readers. *Scientific Studies of Reading*, 10 (3): 257-275.

# R305G040089

Embedding Knowledge-Focused Reading Comprehension Strategies in Cumulative Content-Area Instruction in Grades 3-4-5: An Assessment of Immediate, Transfer, and Long-Term Impact on Reading Achievement

Florida Atlantic University Romance, Nancy Michael Vitale (Eastern Carolina University)

Project Website: http://www.scienceideas.org

#### **Publications:**

Vitale, M.R., and Romance, N.R. (2008). Broadening Perspectives About Vocabulary Instruction: Implications For Classroom Practice. *New England Reading Association Journal*.

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Vitale, M.R., and Romance, N.R. (2006). Research In Science Education: An Interdisciplinary Perspective. In J. Rhoton and P. Shane (Eds.), *Teaching Science In The 21st Century* (pp. 329-351). Arlington, VA: NSTA Press.

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# R305G040097

ICARE: Independent Comprehensive Adaptive Reading Evaluation System

University of Colorado Wise, Barbara Grantee

Related IES Projects: <u>Early ICARE</u>: <u>Early Independent Comprehensive Adaptive Reading</u> Evaluation (R305A070231)

### **Publications:**

Hagen, A., Pellom, B., and Cole, R. (2007). Highly Accurate Children's Speech Recognition For Interactive Reading Tutors Using Subword Units. *Speech Communication*, 49(12): 861-873.

Olson, R., and Wise, B. (2006). Computer-Based Remediation for Reading and Related Phonological Disabilities. In M. McKenna, L. Labbo, R. Kieffer, and D. Reinking (Eds.), *Handbook of Literacy and Technology (Vol. 2)*. Mahwah, NJ: Erlbaum.

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## R305G040103

# **Quick Reads Supplementary Tutoring Efficacy and Replication Trials**

Washington Research Institute Vadasy, Patricia

### **Publications:**

Vadasy, P.F., and Sanders, E.A. (2008). <u>Benefits of Repeated Reading Intervention for Low-Achieving Fourth- and Fifth-Grade Students.</u> *Remedial and Special Education, 29*: 235–249.

Vadasy, P.F., and Sanders, E.A. (2008). <u>Repeated Reading Intervention: Outcomes and Interactions With</u> Readers' Skills and Classroom Instruction. *Journal of Educational Psychology*, *100*: 272–290.

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## R305G040104

Scaling Up Peer Assisted Learning Strategies to Strengthen Reading Achievement

Vanderbilt University

Fuchs, Douglas

Kristen McMaster (University of Minnesota), Laura Saenz (University of Texas, Pan-American)

Project Website: http://kc.vanderbilt.edu/pals/

### **Publications:**

Stein, M.L., Berends, M., Fuchs, D., McMaster, K., Sáenz, L., Loulee Y., Fuchs, L.S., and Compton, D.L. (2008). <u>Scaling up an Early Reading Program: Relationships Among Teacher Support, Fidelity of Implementation, and Student Performance Across Different Sites and Years</u>. *Educational Evaluation and Policy Analysis*, *30*: 368–388.

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Saenz, L., McMaster, K., Fuchs, D., Fuchs, L.S. (2007). Peer-Assisted Learning Strategies in Reading for Students With Different Learning Needs. *Journal of Cognitive Education and Psychology*, 6(3): 395–410.

## R305G040145

Breakthrough to Literacy in the Chicago Public Schools: A Large Scale Evaluation of the Effectiveness of a Reading Comprehension Intervention

University of Iowa Hurtig, Richard

**Publications:** 

## R305G040153

Writing Intensive Reading Comprehension: Effects of Comprehension Instruction With and Without Integrated Writing Instruction on Fourth and Fifth Grade Students' Reading Comprehension and Writing Performance

State University of New York, Buffalo Collins, James

## **Publications:**

Srihari, S., Collins, J., Srihari, R., Srinivasan, H., Shetty, S, and Brutt-Griffler, J. (2008). Automatic Scoring of Short Handwritten Essays in Reading Comprehension Tests. *Artificial Intelligence*, 172: 2–3.

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# 2005 R305G050005

**Print Referencing Efficacy** 

Ohio State University Justice, Laura

## **Publications:**

Breit-Smith, A., Justice, L.M., McGinty, A., and Kaderavek, J. (2009). <u>How Often and how Much?</u> Intensity of Print Referencing Intervention. *Topics in Language Disorders*, 29: 360–369.

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Dobbs-Oates, J., Kaderavek, J.N., Guo, Y., and Justice, L.M. (2011). <u>Effective Behavior Management in Preschool Classrooms and Children's Task Orientation: Enhancing Children's Emergent Literacy and Language Development</u>. *Early Childhood Research Quarterly*, *26* (4): 420–429. doi:10.1016/j.ecresq.2011.02.003.

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Justice, L.M., Kaderavek, J., Fan, X., Sofka, A., and Hunt, A. (2009). <u>Accelerating Preschoolers' Early Literacy Development Through Teacher-Child Storybook Reading</u>. *Language, Speech, and Hearing Services in Schools*, 40: 67–85.

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Logan, J., Piasta, S., Justice, L.M., Schatschneider, C., and Petrill, S. (2011). <u>Children's Attendance Rates and Quality of Teacher-Child Interactions in At-Risk Preschool Classrooms: Contribution to Children's Expressive Language Growth</u>. *Child and Youth Care Forum, 40*: 457–477.

McGinty, A., Fan, X., Breit Smith, A., Justice, L.M., and Kaderavek, J. (2011). <u>Does Intensity Matter?</u> <u>Preschoolers' Print Knowledge Within a Classroom-Based Intervention</u>. *Early Childhood Research Quarterly*, 26, 255–267.

McGinty, A., Justice, L.M., and Rimm-Kaufman, S.E. (2008). <u>Sense of School Community for Preschool Teachers Serving At-Risk Pupils</u>. *Early Education and Development, 19*:361–384.

McGinty, A.S., Justice, L.M., Piasta, S.B., and Kaderavek, J. (2012). <u>Does Context Matter? Explicit Print Instruction During Reading Varies in its Influence by Child and Classroom Factors</u>. *Early Childhood Research Quarterly*, *27* (1): 77–89.

Pentimonti, J. M., Zucker, T. A., Justice, L.M., Petscher, Y., Piasta, S. B., and Kaderavek, J.N. (In Press). Assessing Shared Reading Quality in Preschool Settings: The Systematic Assessment of Book Reading (SABR). *Early Childhood Research Quarterly*.

Piasta, S.B., Justice, L.M., McGinty, A.S., and Kaderavek, J.N. (2012). Increasing Young Children's Contact With Print During Shared Reading: Longitudinal Effects On Literacy Achievement. *Child Development*, 83(3): 810-820.

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Piasta, S.B., Petscher, Y., and Justice, L.M. (2012). How Many Letters Should Preschoolers In Public Programs Know? The Diagnostic Efficiency Of Various Preschool Letter-Naming Benchmarks For Predicting First-Grade Literacy Achievement. *Journal Of Educational Psychology*, *104*(4): 945-958.

## R305G050025

Vocabulary and Abstract Language Enhancement (VALE) to Improve Reading Comprehension in English Language Learners

Arizona State University Restrepo, Maria Adelaida

Project Website: http://www.asu.edu/clas/shs/bll/

**Publications:** 

## R305G050029

Improving Reading Comprehension for Struggling Readers: Understanding the Roles of Vocabulary Development, Guided Strategy Use, and Spanish Language Supports in a Digital Reading Environment

CAST, Inc.

Dalton, Bridget

Patrick Proctor, Catherine Snow (Harvard University)

## **Publications:**

Dalton, B., and Proctor, C.P. (2007). Reading As Thinking: Integrating Strategy Instruction In A Universally Designed Digital Literacy Environment. In D.S. McNamara (Ed.), *Reading Comprehension Strategies: Theories, Interventions, and Technologies* (pp. 421–440). Mahwah, NJ: Erlbaum Publishers.

Dalton, B., Proctor, C.P., Uccelli, P., Mo, E., and Snow, C.E. (2011). <u>Designing For Diversity: The Role Of Reading Strategies and Interactive Vocabulary In A Digital Reading Environment For Fifth-Grade Monolingual English and Bilingual Students</u>. *Journal of Literacy Research*, *43*: 68–100.

Proctor, C.P., Dalton, B., Uccelli, P., Biancaros, G. Mo, E., Snow, C.E., and Neugebauer, S. (2009). <u>Improving Comprehension Online: Effects Of Deep Vocabulary Instruction With Bilingual and Monolingual Fifth Graders</u>. *Reading and Writing: An Interdisciplinary Journal*, *24* (5): 517-544.

Proctor, C., Uccelli, P., Dalton, B., and Snow, C.E. (2009). Understanding Depth Of Vocabulary Online With Bilingual and Monolingual Children. *Reading and Writing Quarterly: Overcoming Learning Difficulties*, 25(4): 311-333.

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# R305G050069

The Read-Write Cycle: An Integrated Model for Instruction and Assessment of Reading Comprehension Through Reading and Writing in the Disciplines

University of California, Riverside

Calfee, Robert

Roxanne Miller (Chapman University)

Calfee, R.C., and Miller, R.G. (2007). Best Practices in Writing Assessment. In S. Graham, C. Macarthur and J. Fitzgerald (Eds.), *Best Practices in Writing Instruction* (pp. 265–286). New York, NY: Guilford Press.

Calfee, R.C., and Miller, R.G. (2005). Breaking Ground: Constructing Authentic Reading-Writing Assessments for Middle and Secondary Students. In R. Indrisano and J. Paratore, (Eds.), *Learning to Write, Writing to Learn: Theory and Research in Practice* (pp. 203–219). Newark, DE: IRA.

Calfee, R.C., and Miller, R.G. (2005). Comprehending through Composing: Reflections on Reading Assessment Strategies. In S. Paris and S. Stahl (Eds.), *Children's Reading Comprehension and Assessment* (pp. 215–233). Mahwah, NJ: Erlbaum.

Calfee, R.C., Miller, R.G., Norman, K.A., Wilson, K.M., and Trainin, G. (2006). Learning to Do Educational Research. In R.J. Sternberg and M. Constas, (Eds.), *Translating Theory and Research Into Educational Practice* (pp. 77–104). Mahwah, NJ: Erlbaum.

## R305G050083

# Assessment of Comprehension Skills in Older Struggling Readers

Boston University Waters, Gloria

Related IES Projects: <u>Assessment of Comprehension in Older Struggling Readers</u> (R305A100261)

**Publications:** 

## R305G050091

## Assessing Readers Struggling to Comprehend Multiple Sources of Information

University of Illinois at Chicago Lawless, Kimberly Susan Goldman

#### **Publications:**

Braasch, J.L.G., Lawless, K.A., Goldman, S.R., Manning, F., Gomez, K.W., and MacLeod, S. (2009). Evaluating Search Results: An Empirical Analysis of Middle School Students' Use of Source Attributes to Select Useful Sources. *Journal of Educational Computing Research*, *41*: 63-82.

Goldman, S.R., and Scardamalia, M. (2013). Managing, Understanding, Applying, and Creating Knowledge In The Information Age: Next-Generation Challenges and Opportunities. *Cognition and Instruction*, *31*(2): 255-269.

Goldman, S.R., Lawless, K.A., Gomez, K.W., Braasch, J.L.G., MacLeod, S., and Manning, F. (2010). Literacy in the Digital World: Comprehending and Learning from Multiple Sources. In M. C. McKeown and L. Kucan (Eds.), *Bringing Reading Research to Life* (pp. 257-284). New York, NY: GuilfordPublications.

Goldman, S.R., Lawless, K.A., Pellegrino, J.P., Braasch, J. L., Manning, F., and Gomez, K. (2012). <u>A Technology for Assessing Multiple Source Comprehension: An Essential Skill of the 21st Century</u>. In J. Clarke-Midura, M. Mayrath, and D. Robinson (Eds.), *Technology-Based Assessments for 21st Century* 

Skills: Theoretical and Practical Implications from Modern Research. Charlotte, NC: Information Age Publishing.

Goldman, S.R., Ozuru, Y., Braasch, J., Manning, F., Lawless, K. Gomez, K., and Slanovits, M. (2011). Literacies for Learning: A Multiple Source Comprehension Illustration. In N.L. Stein and S.W. Raudenbush (Eds.), *Developmental Science Goes to School: Implications for Policy and Practice* (pp. 30-44). New York, NY: Routledge.

Hastings, P., Hughes, S., Magliano, J.P., Goldman, S.R., and Lawless, K. (2012). Assessing The Use Of Multiple Sources In Student Essays. *Behavior Research Methods*, 44(3): 622-633.

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Lawless, K.A., Goldman, S.R., Gomez, K., Manning, F., and Braasch, J.L. (2012). Assessing Multiple Source Comprehension Through Evidence Centered Design. In J.S. Sabatini, E. Albro, and T. O'Reilly (Eds.), *Reaching an Understanding: Innovations in How We View Reading Assessment* (pp 3-17). Lanham, MD: Rowman and Littlefield Education.

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Wiley, J., Goldman, S.R., Graesser, A.C., Sanchez, C.A., Ash, I.K., and Hemmerich, J.A. (2009). <u>Source Evaluation, Comprehension, and Learning in Internet Science Inquiry Tasks</u>. *American Educational Research Journal*, 46 (4): 1060–1106.

## R305G050101

**Evaluating a Multicomponent Reading Intervention Designed to Address the Diverse Needs of Struggling Readers in Late Elementary School** 

Vanderbilt University Compton, Donald

## **Publications:**

Compton, D L., Elleman, A.M., Olinghouse, N.G., Lawrence, J., Bigelow, E., Gilbert, J.K., and Davis, G. (2009). The Influence Of In-Text Instruction On Declarative Knowledge and Vocabulary Learning In Struggling Readers: How IQ Confounds The Story. In R.K. Wagner, C. Schatschneider, C. Phythian-Sence (Eds.), *Beyond Decoding: The Behavioral and Biological Foundations Of Reading Comprehension* (pp. 46-71). New York, NY US: Guilford Press.

Compton, D. L., Elleman, A. M., and Catts, H. W. (2012). Searching for Supplementary Screening Measures to Identify Children at High Risk for Developing Later Reading Problems 1. Reaching an Understanding: Innovations in How We View Reading Assessment, 55.

Elleman, A. M., Lindo, E. J., Morphy, P., and Compton, D. L. (2009). The impact of vocabulary instruction on passage-level comprehension of school-age children: A meta-analysis. *Journal of Research on Educational Effectiveness*, *2*(1): 1-44.

# R305G050121

# **Project Words of Oral Reading and Language Development (Project WORLD)**

Texas A and M University Gonzalez, Jorge Deb Simmons

Related IES Projects: WORLD Efficacy Study (R305A110638)

### **Publications:**

Gonzalez, J.E., Darrensbourg, A., Perez, E., Villareal, V., Kim, M., and Haynes, R. (2011). <u>Exploring the Underlying Factor Structure of the English and Spanish Translation of the "Familia" Family Literacy Inventory: A Cautionary Tale</u>. *Early Childhood Research Quarterly*, *26*(4): 475-483.

Gonzalez, J.E., Pollard-Durodola, S., Simmons, D.C., Taylor, A., Davis, M.J., Kim, M., and Simmons, L. (2011). <u>Developing Low-Income Preschoolers' Social Studies and Science Vocabulary Knowledge Through Content-Focused Shared Book Reading</u>. *Journal of Research on Educational Effectiveness*. 4(1): 25-52.

Pollard-Durodola, S., Gonzalez, J.E., Simmons, D., Taylor, A., Davis, M., and Simmons, L. (2011). <u>The Effects of an Intensive Shared Book-Reading Intervention for Preschool Children at Risk for Vocabulary Delay.</u> *Exceptional Children*, 77(2): 161-183.

Simmons, D.C., Pollard-Durodola, S.D., Gonzalez, J.E., Davis, M. and Simmons, L. (2007). The Construction of Shared-Reading Interventions: Principles for Accelerating the Vocabulary Development and Comprehension of Low-Income Households. In. S.B. Neuman (Ed.), *Literacy achievement for young children from poverty* (pp. 187-212). Baltimore, MD: Brooks Publishing.

# R305G050122

# Variations in Procedures to Improve Reading Fluency and Comprehension

University of California, Riverside O'Connor, Rollanda H Lee Swanson

## **Publications:**

O'Connor, R.E., Gutierrez, G., Teague, K., Checca, C., Kim, J., and Ho, T. (2013). Variations In Practice Reading Aloud: Ten Versus Twenty Minutes. *Scientific Studies Of Reading*, *17*(2): 134-162.

O'Connor, R.E., Swanson, H.L., and Geraghty, C. (2010). <u>Improvement in Reading Rate Under Independent and Difficult Text Levels: Influences on Word and Comprehension Skills</u>. *Journal of Educational Psychology, 102*: 1–19.

O'Connor, R.E., White, A., and Swanson, H.L. (2007). <u>Repeated Reading Versus Continuous Reading:</u> <u>Influences on Reading Fluency and Comprehension</u>. *Exceptional Children*, 74 (1): 31–46.

Swanson, H.L., and O'Connor, R.E. (2009). <u>The Role of Working Memory and Fluency Training on Reading Comprehension in Children who are Dysfluent Readers.</u> *Journal of Learning Disabilities, 42*: 548–575.

# R305G050154

<u>Developing Internet Comprehension Strategies Among Adolescent Students At Risk to Become Dropouts</u>

University of Connecticut Leu, Donald David Reinking (Clemson University)

Project Website: http://www.newliteracies.uconn.edu/iesproject/index.html

Related IES Projects: <u>Assessing Online Reading Comprehension: The ORCA Project</u> (R305A090608)

# **Publications:**

Boling, E., Castek, J., Zawilinski, L, Barton, K., and Nierlich, T. (2008). Collaborative Literacy: Blogs and Internet Projects. *The Reading Teacher*, *61*: 504–506.

Castek, J., Coiro, J., Hartman, D.K., Henry, L.A., Leu, D.J., and Zawilinski, L. (2007). Thinking About Our Future As Researchers: New Literacies, New Challenges, and New Opportunities. In M. Sampson, S. Szabo, F. Falk-Ross, M.F. Foote, P.E. Linder (Eds.), *Multiple Literacies In The 21st Century: The Twenty-Eighth Yearbook, A Peer-Reviewed Publication Of The College Reading Association* (pp. 31-50). Readyville, TN US: College Reading Association.

Castek, J., Leu, D.J., Jr., Coiro, J., Gort, M., Henry, L.A., and Lima, C. (2008). Developing New Literacies among Multilingual Learners in the Elementary Grades. In L. Parker (Ed.), *Technology-Mediated Learning Environments for Young English Learners: Connections in and Out of School*. Mahwah, NJ: Erlbaum.

Coiro, J., and Dobler, E. (2007). <u>Exploring the Online Reading Comprehension Strategies Used by Sixth-Grade Skilled Readers to Search for and Locate Information on the Internet</u>. *Reading Research Quarterly*, 42 (2): 214–257.

Coiro, J., Knobel, M., Lankshear, C., and Leu, D.J. (Eds.), (2008). *Handbook of Research on New Literacies*. Mahwah, NJ: Erlbaum.

Coiro, J., Knobel, M., Lankshear, C., and Leu, D.J. (2008). Central Issues in New Literacies and New Literacies Research. In J. Coiro, M. Knobel, C. Lankshear and D. Leu (Eds.), *Handbook of Research on New Literacies*. (pp 1–21). Mahwah, NJ: Erlbaum.

Holcomb, L., Castek, J., and Johnson, P. (2007). Unlocking the Potential of K–12 Classroom Websites to Enhance Learning. *New England Reading Association Journal*, 43 (1): 36–43.

Leu, D.J. (2006). New Literacies, Reading Research, and the Challenges of Change: A Deictic Perspective. (NRC Presidential Address). In J. Hoffman, D. Schallert, C.M. Fairbanks, J. Worthy, and B. Maloch (Eds.), *The 55th Yearbook of the National Reading Conference* (pp.1–20). Milwaukee, WI: National Reading Conference.

Leu, D.J. (2007). Foreword. In M.B. Eagleton and W. Dobler. *Reading the Web: Strategies for Internet Inquiry*. New York, NY: The Guilford Press.

Leu, D.J. (2007). Expanding the Reading Literacy Framework of PISA 2009 to Include Online Reading Comprehension. Princeton, NJ: Educational Testing Service.

Leu, D.J., and Zawilinski, L. (2001). <u>The New Literacies of Online Reading Comprehension</u>. *New England Reading Association Journal.*, 55(1): 5-14.

Leu, D.J., Coiro, J., Castek, J., Hartman, D., Henry, L.A., and Reinking, D. (2008). Research on Instruction and Assessment in the New Literacies of Online Reading Comprehension. In C.C. Block, S. Parris, and P. Afflerbach (Eds.), *Comprehension Instruction: Research-Based Best Practices*. New York: Guilford Press.

Leu, D.J., O'Byrne, W., Zawilinski, L., McVerry, J., and Everett-Cacopardo, H. (2009). Expanding The New Literacies Conversation. *Educational Researcher*, *38*(4): 264-269.

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McKenna, M.C., Labbo L.D., Reinking D., and Zuker, T.A. (2007). Effective Use of Technology in Literacy Instruction. In L. Gambrell, L.M. Morrow, and M. Pressley (Eds.), *Best Practices in Literacy Instruction* (pp. 344–372). New York, NY: Guilford.

McKenna, M.C., Labbo, L.D., Kieffer, R.D., and Reinking, D. (2006). *International Handbook of Literacy and Technology*, 2. Mahwah, NJ: Erlbaum.

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Reinking, D. (2009). Valuing Reading, Writing, and Books in a Post-Typographic World. In D. Nord and J. Rubin (Eds.), *The History of the Book in American (Vol. 5)*. Cambridge, UK: American Antiquarian Society and Cambridge University Press.

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## R305G050201

Diagnostic Assessment of Reading Comprehension: Development and Validation

University of Houston

Francis, David

Catherine Snow (Harvard University), Diane August (University of California)

# **Publications:**

August, D., Francis, D., Hsu, H-Y.A., and Snow, C. (2006). <u>Assessing Reading Comprehension in Bilinguals</u>. *Instructional Research on English Learners. Special Issue of Elementary School Journal*, 107(2): 221–239.

Francis, D., Snow, C., August, D., Carlson, C., Miller, J., and Iglesias, A. (2006). <u>Measures of Reading Comprehension</u>. <u>A Latent Variable Analysis of the Diagnostic Assessment of Reading Comprehension</u>. *Scientific Studies of Reading*, 10(3): 301–322.

Malabonga, V., Kenyon, D., Carlo, M. August, D. and Louguit, M. (2008). Development of a Cognate Awareness Measure for Spanish-speaking English Language Learners, *Language Testing*, *24*(4): 495-519. ERIC: <a href="http://eric.ed.gov/ERICWebPortal/detail?accno=EJ810672">http://eric.ed.gov/ERICWebPortal/detail?accno=EJ810672</a>.

Pan, B., and Uccelli, P. (2009). Semantic Development. In J. Berko-Gleason and N. Bernstein Ratner (Eds.), *The Development of Language, 7th Edition*. Boston, MA: Allyn and Bacon.

Uccelli, P., and Páez, M. (2007). Narrative and Vocabulary Development of Bilingual Children From Kindergarten to First Grade: Developmental Changes and Associations among English and Spanish Skills. *Language, Speech, and Hearing Services in Schools, 38*: 1–13.

Uccelli, P., and Snow, C.S. (2008). A Research Agenda For Educational Linguistics. In B. Spolsky, F.M. Hult (Eds.), *The Handbook Of Educational Linguistics* (pp. 626-642). Malden: Blackwell Publishing.

# R305G050216

The Read Aloud Curriculum in First Grade Classrooms: Furthering Our Understanding of Immediate and Long-Term Impacts and Causal Influences

Pacific Institutes for Research

Baker, Scott

Lana Edwards Santoro, David Chard

Related IES Projects: <u>The Story Read Aloud Project: The Development of an Innovative Instructional Approach to Promote Comprehension and Vocabulary in First Grade Classrooms</u> (R305G020057)

## **Publications:**

Baker, S.K., Santoro, L., Chard, D.J., Fien, H., Park, Y., and Otterstedt, J. (2013). An Evaluation of an Explicit Read Aloud Intervention Taught in Whole-Classroom Formats in First Grade. *The Elementary School Journal*, 113(3): 331-358. DOI: 10.1086/668503.

Fien, H., Santoro, L., Baker, S.K., Park, Y., Chard, D.J., Williams, S., and Haria, P. (2011). <u>Enhancing Teacher Read Alouds with Small-Group Vocabulary Instruction for Students with Low Vocabulary in First-Grade Classrooms</u>. *School Psychology Review*, *40*(2): 307-318.

# 2006

# R305G060008

**Development of an Empirically Based Vocabulary Curriculum for Kindergarten and First Grade Students** 

University of Texas Health Science Center at Houston

Ciancio, Dennis

Emily Solari (University of California Davis), Brian Wilhoit (University of Tennessee)

Related IES Projects: <u>Development of Integrated Text Level Curricula for Kindergarten Through</u>

Second Grade Students (R305A100270)

**Publications:** 

# R305G060106

Postsecondary Content-Area Reading-Writing Intervention: Development and Determination of Potential Efficacy

Columbia University, Teachers College

Perin, Dolores

**Publications:** 

## R305G060108

<u>Using Growth Mixture Modeling to Identify Patterns of Early Reading Development and Teacher and Program Correlates for English Learners</u>

California State University, Los Angeles

Hafner, Anne

**Publications:** 

# R305G060140

**Vocabulary Development Through Writing: A Key to Academic Success** 

University of California, Santa Cruz

Scott, Judith

Project Website: <a href="http://vineproject.ucsc.edu/">http://vineproject.ucsc.edu/</a>

Related IES Projects: Measuring Vocabulary with Testlets: A New Tool for Assessment

(R305A090550)

# **Publications:**

Lubliner, S., and Scott, J. (2008). *Nourishing Vocabulary*. Thousand Oaks, CA: Corwin. Samway, K. Davies, and Taylor, D. (2008). *Teaching English Language Learners*, 6–12: *Strategies that Work*. New York: Scholastic.

Scott, J., Nagy, B., and Flinspach, S. (2008). More than Merely Words: Redefining Vocabulary Learning in a Culturally and Linguistically Diverse Society. In A. Farstrup and J. Samuels (Eds.), *What Research Has to Say About Vocabulary Instruction* (pp. 182–210). Newark, DE: International Reading Association.

Scott, J., Hoover, M., Flinspach, S., and Vevea, J. (2008). A Multiple-Level Vocabulary Assessment Tool: Measuring Word Knowledge Based on Grade-Level Materials. In Y. Kim, V. Risko, D. Compton, D. Dickinson, M. Hundley, R. Jimenez, K. Leander, D. Rowe (Eds.), *57th Annual Yearbook of the National Reading Conference* (pp. 325–340). Oak Creek, WI: National Reading Conference.

Scott, J., Skobel, B., and Wells, J. (2008). *The Word Conscious Classroom: Building the Vocabulary Readers and Writers Need*. New York: Scholastic.

# 2007

# R305A070045

Effects of a Supplementary Vocabulary Intervention for Students With Limited English Proficiency

University of Nebraska, Lincoln Nelson, J. Ron

Related IES Projects: <u>Efficacy of Supplemental Early Vocabulary Connections Instruction for</u> English Language Learners (R305A110343)

#### Publications:

Nelson, J.R., Vadasy, P., and Sanders, E.A. (2011). Efficacy Of A Tier 2 Supplemental Root Word Vocabulary and Decoding Intervention With Kindergarten Spanish-Speaking English Learners. *Journal of Literacy Research*, 43(2):184 - 211.

Vadasy, P.F., Nelson, J., and Sanders, E.A. (2013). Longer Term Effects Of A Tier 2 Kindergarten Vocabulary Intervention For English Learners. *Remedial and Special Education*, *34*(2): 91-101.

# R305A070231

Early ICARE: Early Independent Comprehensive Adaptive Reading Evaluation University of Colorado

Wise, Barbara

Project Website: http://carla.colorado.edu/#

Related IES Projects: <u>ICARE</u>: <u>Independent Comprehensive Adaptive Reading Evaluation</u> <u>System</u> (R305G040097)

### **Publications:**

Brojde, C., and Wise, B. (2008). An Evaluation of the Testing Effect with Third Grade Students. In B. C. Love, K. McRae, and V. M. Sloutsky (Eds.), *Proceedings of the 30<sup>th</sup> Annual Conference of the Cognitive Science Society* (pp. 1362-1367). Washington, DC: Cognitive Science Society.

Wise, B. and Van Vuuren, S. (2007). Choosing Software Gems to Improve Your Child's Reading. *Perspectives on Language and Literacy*, 33:3, 34-38.

Wise, B., Rogan, L., and Sessions, L. (2009). Sharing Research Knowledge With Teachers: The Story Of Linguistic Remedies. In S. Rosenfield, V. Berninger (Eds.), *Implementing evidence-based academic interventions in school settings* (pp. 443-477). New York, NY US: Oxford University Press.

# R305A070324

# Efficacy of Sound Partners Supplemental Tutoring for ELL Students, Grades K-1 Washington Research Institute

Vadasy, Patricia

### **Publications**

Slavin, R.E., Madden, N.A., Chambers, B., and Haxby, B. (2009). 2 Million Children: Success For All (2nd ed.). Thousand Oaks, CA US: Corwin Press.

Vadasy, P.F., and Sanders, E.A. (2010). <u>Efficacy of supplemental phonics instruction for low-skilled kindergarteners in the context of language-minority status and classroom phonics instruction</u>. *Journal of Educational Psychology, 102*(4), 786–803.

Vadasy, P.F., and Sanders, E.A. (2011). <u>Efficacy of supplemental phonics-based instruction for low-skilled first graders: How language minority status and pretest characteristics moderate treatment response</u>. *Scientific Studies of Reading*, *15*(6): 471-497.

Vadasy, P.F., and Sanders, E.A. (2012a). <u>Two-year follow-up of a kindergarten phonics intervention for English Learners and Native English speakers: Contextualizing treatment impacts by classroom literacy instruction</u>. *Journal of Educational Psychology*, *104*(4): 987-1005.

Vadasy, P.F., and Sanders, E.A. (2012b). Two-year follow-up of a code-oriented intervention for lower-skilled first graders: The influence of language status and word reading skills on third-grade literacy outcomes. *Reading and Writing: An Interdisciplinary Journal. 1-23*.

## R305A070438

<u>Content-Based Vocabulary Instruction: Using Cognates to Promote the Vocabulary Development and Reading Comprehension of Native Spanish Speakers</u>

Center for Applied Linguistics

Arteagoitia, Igone

Project Website: http://www.cal.org/vias/subproject4/

# **Publications:**

Howard, E.R., Green, J.D., and Arteagoitia, I. (2012). <u>Can Yu Rid Guat Ay Rot? A Developmental Investigation Of Cross-Linguistic Spelling Errors Among Spanish-English Bilingual Students</u>. *Bilingual Research Journal*, 35(2): 164-178.

# R305B070005

New Grant Number: R305B077307

Reading Intervention with Spanish-Speaking Students: Maximizing Instructional Effectiveness in English and Spanish

University of Oregon

Baker, Scott

## **Publications:**

Baker, D.L., Park, Y., Baker, S.K., Basaraba, D.L., Kame'enui, E.J., and Beck, C.T. (2012). <u>Effects of a Paired Bilingual Reading Program and an English-Only Program on the Reading Performance of English Learners in Grades 1-3</u>. *Journal of School Psychology*, *50*(6): 737–758.

Cena, J., Baker, D.L., Kame'enui, E.J., Baker, S.K., Park, Y., and Smolkowski, K. (2012). The Impact Of A Systematic and Explicit Vocabulary Intervention In Spanish With Spanish-Speaking English Learners In First Grade. *Reading and Writing*. Advance Online Publication.

## R305B070074

<u>Child-Instruction Interactions in Reading: Examining Causal Effects of Individualized Instruction in Second and Third Grade</u>

Florida State University

Connor, Carol

Related IES Projects: Child Instruction Interactions in Early Reading: Examining Causal Effects of Individualized Instruction (R305H040013) and Making Individualized Literacy Instruction Available to All Teachers: Adapting the Assessment to Instruction (A2i) Software for Multiple Real-World Contexts (R305A130517)

## **Publications:**

Al Otaiba, S., Connor, C.M., Folsom, J.S., Greulich, L., Meadows, J., and Li, Z. (2011). <u>Assessment Data-Informed Guidance to Individualize Kindergarten Reading Instruction: Findings from a Cluster-Randomized Control Field Trial</u>. *Elementary School Journal*, *111* (4): 535-560.

Al Otaiba, S., Connor, C.M., Foorman, B., Schatschneider, C., Greulich, L., and Sidler, J. F. (2009). Identifying and Intervening with Beginning Readers who are At-Risk for Dyslexia: Advances in Individualized Classroom Instruction. *Fall Perspectives*.

Al Otaiba, S., Petscher, Y., Pappamihiel, N., Williams, R. S., Dyrlund, A. K., and Connor, C. (2009). Modeling Oral Reading Fluency Development In Latino Students: A Longitudinal Study Across Second and Third Grade. *Journal Of Educational Psychology*, *101*(2): 315-329.

Connor, C.M. (2008). Language and Literacy Connections for Children who are African American. *Perspectives on Communication Disorders and Science in Culturally and Linguistically Diverse Populations*, 15: 43-53.

Connor, C.M. (2009). Individualized Reading Instruction in Early Elementary Classrooms. *Perspectives on Language and Literacy, Special Edition*: 33-38.

Connor, C.M. (2011). Child by Instruction Interactions: Language and Literacy Connections. In S. B. Neuman and D. K. Dickinson (Eds.), *Handbook on Early Literacy* (3rd ed., pp. 256-275). New York: Guilford.

Connor, C.M., and Morrison, F.J. (2011). Knowledge Acquisition in the Classroom: Literacy and Content Area Knowledge. In A. M. Pinkham, T. Kaefer and S. B. Neuman (Eds.), *Knowledge Development in Early Childhood: How Young Children Build Knowledge and Why It Matters*. New York: Guilford Press

Connor, C.M., Jakobsons, L. J., Crowe, E., and Meadows, J. (2009). <u>Instruction, Differentiation, and Student Engagement In Reading First Classrooms</u>. *Elementary School Journal*, *109*(3): 221-250.

Connor, C.M., Kaya, S., Luck, M., Toste, J., Canto, A., Rice, D.C., et al. (2010). <u>Content-Area Literacy:</u> <u>Individualizing Student Instruction in Second Grade Science</u>. *Reading Teacher*, 63(6): 474-485.

Connor, C.M., Morrison, F.J., Fishman, B., and Schatschneider, C. (2012). Assessment and Instruction Connections: The Implications of Child X Instruction Interactions Effects on Student Learning. In J. Sabatini and E. R. Albro (Eds.), *Assessing Reading in the 21st Century: Aligning and Applying Advances in the Reading and Measurement Sciences*. Lanham, MD: Rand L Education.

Connor, C.M., Morrison, F.J., Fishman, B., Giuliani, S., Luck, M., Underwood, P., and Schatschneider, C. (2011). <u>Testing the Impact of Child Characteristics x Instruction Interactions on Third Graders' Reading Comprehension by Differentiating Literacy Instruction</u>. *Reading Research Quarterly*, *46*(3), 189-221.

Connor, C.M., Morrison, F.J., Fishman, B., Ponitz, C. C., Glasney, S., Underwood, P., Piasta, S. B.,, Crowe, E., and Schatschneider, C. (2009). The ISI classroom observation system: Examining the literacy instruction provided to individual students. *Educational Researcher*, 38(2), 85-99.

Connor, C.M., Morrison, F.J., Schatschneider, C., Toste, J., Lundblom, E.G., Crowe, E., and Fishman, B. (2011). <u>Effective Classroom Instruction: Implications of Child Characteristic ny Instruction Interactions on First Graders' Word Reading Achievement.</u> *Journal for Research on Educational Effectiveness, 4*(3): 173-207.

Connor, C.M., Piasta, S. B., Fishman, B., Glasney, S., Schatschneider, C., Crowe, E., Underwood, P., and Morrison, F.J. (2009). Individualizing Student Instruction Precisely: Effects of Child by Instruction Interactions on First Graders' Literacy Development. *Child Development*, 80(1): 77-100.

Connor, C.M., Ponitz, C., Phillips, B.M., Travis, Q., Glasney, S., and Morrison, F.J. (2010). First Graders' Literacy and Self-Regulation Gains: The Effect Of Individualizing Student Instruction. *Journal Of School Psychology*, 48(5): 433-455.

Connor, C.M., Rice, D.C., Southerland, S.A., Canto, A., Underwood, P., Kaya, S., Fishman, B. and Morrison, F.J. (2012). <u>Child Characteristics by Science Instruction Interactions in Second and Third Grade and Their Relation to Students' Content-Area Knowledge, Vocabulary and Reading Skill Gains</u>. *Elementary School Journal*, 113(1): 52-75.

Connor, C.M., Schatschneider, C., Morrison, F.J., Fishman, B., Ponitz, C.C., Piasta, S., Fishman, B. J., Crowe, E.C., Glasney, S., and Underwood, P.(2009). <u>Back to the Future: Contrasting Scientific Styles in Understanding Reading: A Rejoinder to Willis and Smagorinsky</u>. *Educational Researcher*, *38* (7): 537-540.

Crowe, E., Connor, C.M., and Petscher, Y. (2009). Examining the Core: Relations Among Reading Curriculums, Poverty, and First Through Third Grade Reading Achievement. *Journal of School Psychology*, 47:187-214.

Dombek, J., and Connor, C.M. (2012). <u>Preventing Retention by Improving Teacher Efficacy in Reading</u>. *Psychology in Schools*, 49(6): 568-588.

Hernandez, M., Al Otaiba, S., Folsom, J.S., Connor, C.M., and Thomas-Tate, S. (in press). Predicting First Grade Reading Outcomes from Kindergarten Language and Literacy Skills: Examining the Contributions

of Dialect and Morpho-Syntactic Skills Within a Component Model off Reading. *Journal of Learning Disabilities*.

Morrison, F.J., and Connor, C.M. (2010). Instructional Influences on Growth of Early Reading: Individualizing Student Learning. In N. Stein and S. W. Raudenbush (Eds.), *Developmental Learning Sciences go to School: Implications for Education and Public Policy Research*. New York, NY: Taylor and Francis, Inc.

Morrison, F.J., and Connor, C.M. (2010). Literacy Development in the Transition to School: An Integrative Framework. In J. Meece and J. Eccles (Eds.), *Handbook of Research on Schools, Schooling, and Human Development* (pp. 185-197). Mahwah, NJ: Lawrence Erlbaum Associates.

Morrison, F.J., Connor, C.M., and Hindman, A.H. (2010). Early Schooling and Growth of Literacy in the Transition to School. In D. Aram and O. Korat (Eds.), *Literacy Development and Enhancement Across Orthographies and Cultures* (pp. 153-164). New York: Springer.

Morrison, F.J., and Connor, C.M. (2009). The Transition to School: Child-Instruction Transactions in Learning to Read. In A. Sameroff (Ed.), *The Transactional Model of Development: How Children and Contexts Shape Each Other* (pp. 183–201). Washington, DC: American Psychological Association.

Petscher, Y., Connor, C.M., and Al Otaiba, S. (2012). <u>Psychometric Analysis of the Diagnostic Evaluation of Language Variation Assessment</u>. *Assessment for Effective Intervention*, *37*(4): 243-250.

Piasta, S. B., Connor, C.M., Fishman, B., and Morrison, F.J. (2009). Teachers' Knowledge of Literacy, Classroom Practices, and Student Reading Growth. *Scientific Studies of Reading*, *13*(3): 224-248.

Skibbe, L.E., Phillips, B. M., Day, S. L., Brophy-Herb, H. E., and Connor, C.M. (2012). <u>Children's Early Literacy Growth in Relation to Classmates' Self-Regulation</u>. *Journal of Educational Psychology*, *104*(3): 541-553.

Taylor, J. J., Roehrig, A. D., Connor, C.M., and Schatschneider, C. (2010). Teacher Quality Moderates the Genetic Effects on Early Reading. *Science*, *328*: 512-514.

Terry, N.P., and Connor, C.M. (2010). <u>African American English and Spelling: How do Second Graders Spell Dialect-Sensitive Features of Words</u>? *Learning Disabilities Quarterly, 33*(3): 199-210.

Terry, N.P., and Connor, C.M. (2012). <u>Changing Nonmainstream American English use and Early Reading Achievement from Kindergarten to First Grade</u>. *American Journal of Speech-Language Pathology, 21*(1): 78-86.

Terry, N.P., Connor, C.M., and Petscher, Y. (2012). <u>Dialect Variation and Reading: Is Change in Nonmainstream American English use Related to Reading Achievement in First and Second Grade?</u> *Journal of Speech Language and Hearing Research*, *55*(1): 55-69.

Terry, N., Connor, C., Thomas-Tate, S., and Love, M. (2010). <u>Examining Relationships Among Dialect Variation, Literacy Skills, and School Context in First Grade</u>. *Journal of Speech, Language and Hearing Research, 53* (1): 126-145.

Watts-Taffe, S., Laster, B., Broach, L., Marinak, B., Connor, C.M., and Walker-Dalhouse, D. (Dec 2012-Jan 2013). <u>Differentiated Instruction: Making Informed Teacher Decisions</u>. *Reading Teacher*, *66* (4): 303-314.

# 2008

# R305A080133

Efficacy and Replication Research on the Intelligent Tutoring System for the Structure Strategy—Rural and Suburban Schools Grades 4, 5, 7, and 8

Pennsylvania State University

Wijekumar, Kay

Bonnie Meyer, Pui-Wa Lei, Jonna Kulikowich (Pennsylvania State University)

Related IES Projects: Intelligent Tutoring Using The Structure Strategy To Improve Reading Comprehension Of Middle School Students (R305G030072) and Improving Reading Comprehension of Middle Grades English Language Learners by Combining Structure Strategy with Web-Based Adaptive Tutoring for EL Learners (SWELL) (R305A120593)

### **Publications:**

Wijekumar, K., Meyer, B.F., and Lei, P. (2012). Large-Scale Randomized Controlled Trial With 4th Graders Using Intelligent Tutoring Of The Structure Strategy To Improve Nonfiction Reading Comprehension. *Educational Technology Research and Development*, 60(6): 987-1013.

## R305A080157

# **Developing Vocabulary in an Automated Reading Tutor**

Carnegie Mellon University
Mostow, David
Margaret McKeown, Charles Perfetti (University of Pittsburgh)

Project Website: http://www.cs.cmu.edu/~listen/

Related IES Projects: Explicit Comprehension Instruction in an Automated Reading Tutor that Listens (R305B070458) and Accelerating Fluency Development in an Automated Reading Tutor (R305A080628)

## **Publications:**

Duan, W., and Yates, A. (2010). *Extracting Glosses to Disambiguate Word Senses*. Paper presented at the Human Language Technologies: The 2010 Annual Conference of the North American Chapter of the Association for Computational Linguistics, Los Angeles, pp 627-635.

Jang, H., and Mostow, J. (2012). *Inferring Selectional Preferences from Part--of---Speech N---grams*. Paper presented at the Proceedings of the 13th Conference of the European Chapter of the Association for Computational Linguistics, Avignon, France, pp 377.

Liu, L., Mostow, J., and Aist, G.S. (2012). Generating example contexts to help children learn word meaning. *Natural Language Engineering, FirstView*, 1---26. doi: doi:10.1017/S1351324911000374

Mostow, J., Aist, G., Bey, J., Chen, W., Corbett, A., Duan, W., and Yen, D. (2010). A Better Reading Tutor That Listens. In *Intelligent Tutoring Systems*(pp. 451-451). Springer Berlin/Heidelberg.

Mostow, J., and Beck, J.E. (2009). *Why, What, and How to Log? Lessons from LISTEN*. Paper presented at the Proceedings of the Second International Conference on Educational Data Mining, Córdoba, Spain, pp 269 – 278.

Mostow, J., Beck, J.E., Cuneo, A., Gouvea, E., Heiner, C., and Juarez, O. (2010). Lessons from Project LISTEN's Session Browser. In C. Romero, S. Ventura, S.R. Viola, M. Pechenizkiy and R.S.J.D. Baker (Eds.), *Handbook of Educational Data Mining* (pp. 389---416). New York: CRC Press, Taylor and Francis Group.

Mostow, J., and Duan, W. (2011). Generating example contexts to illustrate a target word sense. In *Proceedings of the 6th Workshop on Innovative Use of NLP for Building Educational Applications* (pp. 105-110). Association for Computational Linguistics.

Mostow, J., and Tan, B.H.L. (2010). AutoJoin: Generalizing an Example into an EDM query. In *Proceedings of the 3rd International Conference on Educational Data Mining* (pp. 11-13).

# R305A080627

**An Efficacy Trial of Robust Vocabulary Instruction** 

Mid-continent Research for Education and Learning (McREL) Apthorp, Helen

**Publications:** 

## R305A080647

Measuring the Development of Vocabulary and Word Learning to Support Content Area Reading and Learning

Educational Testing Service Deane, Paul

**Publications:** 

# 2009

# R305A090015

Designing Assessment to Enhance English Literacy Development Among Spanish-Speaking Children in Grades K-3

University of Virginia Invemizzi, Marica

Karen Ford, Xito Fan, Igone Arteagoitia, and Timothy Landrum

Related IES Projects: <u>Developing an Early Literacy Assessment for Spanish-Speaking Children in Preschool: PALS español PreK</u> (R305A130469)

National Randomized Controlled Trial Study of SRA/McGraw-Hill Open-Court Reading Program

Southwest Educational Development Corporation Vaden-Kiernan, Michael

**Publications:** 

# R305A090152

<u>Investigating Vocabulary Breadth and Depth and Comprehension in English Monolingual and Spanish-English Bilingual Elementary School Students</u>

University of Maryland, College Park

Silverman, Rebecca

Patrick Proctor (Boston College), Jeffery Harring (University of Maryland)

#### Publications:

Kohli, N., and Harring, J.R. (2013). Modeling Growth In Latent Variables Using A Piecewise Function. *Multivariate Behavioral Research*, 48(3): 370-397.

Leider, C.M., Proctor, C.P., Silverman, R.D., and Harring, J.R. (in press). Examining The Role Of Vocabulary Depth, Cross-Linguistic Transfer, and Types Of Reading Measures On The Reading Comprehension Of Latino Bilinguals In Elementary School. *Reading and Writing: An Interdisciplinary Journal*.

Proctor, C.P., Silverman, Harring, J., and Montecillo, C. (2012). The Role Of Vocabulary Depth In Predicting Reading Comprehension Among English Monolingual and Spanish-English Bilingual Children In Elementary School. *Reading and Writing*, *25*: 1635-1644.

Proctor, C.P. and Silverman, R.D. (2011). Confounds In Assessing The Associations Between Biliteracy and English Language Proficiency. *Educational Researcher*, 40(2): 62-64.

# R305A090163

<u>Development of a Multifaceted, Comprehensive Vocabulary Instructional Program for the Upper Elementary Grades</u>

University of Wyoming

Baumann, James

Patrick Manyak (University of Wyoming), Camille Blachowicz (National Louis University)

Responding to the National Crisis in Writing: An Efficacy Study of an Elementary Grades Writing Program

Education Development Center, Inc.

Kotula, Andrea

Terrence Tivnan

**Publications:** 

## R305A090523

<u>A Multi-Part Intervention for Accelerating Vocabulary Acquisition through Inductive</u> <u>Transfer</u>

Florida Atlantic University Romance, Nancy Michael Vitale

**Publications:** 

## R305A090550

Measuring Vocabulary with Testlets: A New Tool for Assessment

University of California, Santa Cruz Scott, Judith Susan Flinspach, Jack Vevea

Related IES Projects: <u>Vocabulary Development Through Writing</u>: A Key to Academic Success (R305G060140)

**Publications:** 

# 2010

## R305A100034

<u>Predictors and Subtypes of Reading Disabilities: Implications for Instruction of 'Late Emergers'</u>

Vanderbilt University

Compton, David

Doug Fuchs, Lynn Fuchs (Vanderbilt University)

Related IES Projects: <u>Response-To-Intervention as an Approach to Preventing and Identifying Learning Disabilities in Reading</u> (R324G060036)

Compton, D.L., Miller, A.C., Gilbert, J.K., and Steacy, L.M. (in press). Using item response random-effects modeling techniques to explore the relations between reader and text characteristics in subtypes of poor comprehenders. In L.E. Cutting, B. Miller, and P. McCardle (Eds.) *Unraveling the behavioral, neurobiological, and genetic components of reading comprehension*. Baltimore, MD: Brookes Publishing.

Compton, D.L., Elleman, A.M., and Catts, H.W. (in press). Searching for supplementary screening measures to identify children at high risk for developing later reading problems assessing. In J. Sabatini, and E.R. Albro (Eds.). *Reading in the 21<sup>st</sup> Century: Aligning and applying advances in the reading and measurement sciences*. Lanham, MD: Rowman and Littleford Education.

# R305A100094

<u>Development of a Multifaceted, Comprehensive Vocabulary Instructional Program for the Upper Elementary Grades</u>

University of Missouri

Baumann, James

Patrick Manyak (University of Wyoming) and Camille Blachowicz (National Louis University)

**Publications:** 

## R305A100270

<u>Development of Integrated Text Level Curricula for Kindergarten Through Second Grade</u> Students

University of Texas Health Science Center at Houston

Ciancio, Dennis

Emily Solari (University of California Davis), Brian Wilhoit (University of Tennessee)

Grant Transferred to: University of Tennessee, Award Number R305A100093

Related IES Projects: <u>Development of an Empirically Based Vocabulary Curriculum for Kindergarten and First Grade Students (R305G060008)</u>

<u>Developing Contrastive Analysis Techniques for Teaching Academic Classroom English to Young African American English-Speaking Students</u>

Regents of the University of Michigan Craig, Holly Stephen Schilling

Related IES Projects: Exploring the Contribution of Social, Cognitive, and Linguistic Factors on the Development of Style Shifting by Young African-American English-speaking Students
Learning to Read (R305A120320)

Publications:

## R305A100297

Fostering Reading Engagement in English-Monolingual Students and English Language Learners Through a History Curriculum

George Mason University

Taboada, Ana

Michelle Buehl, Julie K. Kidd, Elizabeth Sturtevant

### **Publications:**

Taboada Barber, A., Richey, L.N., and Buehl, M.M. (2013). Promoting Comprehension and Motivation To Read In The Middle School Social Studies Classroom: Examples From A Research-Based Curriculum. In R.T. Boon and V. Spencer (Eds.). *Comprehension strategies to promote adolescent literacy in the contentareas for the inclusive classroom.* Baltimore: Brookes Publishing.

## R305A100440

Robust Instruction of Academic Vocabulary for Middle School Students

University of Pittsburg McKeown, Margaret

## **Publications:**

McKeown, M.G., Crosson, A.C., Artz, N.J., Sandora, C., and Beck, I.L. (in press). In The Media: Expanding Students' Experience With Academic Vocabulary. *The Reading Teacher*.

## R305A100568

Efficacy of Rich Vocabulary (RVOC) Instruction for Classrooms

Washington Research Institute Vadasy, Patricia Joseph R. Jenkins (University of Washington)

<u>Development of a Curriculum to Teach Writing in Postsecondary Developmental English</u> Composition Classes

University of Delaware MacArthur, Charles Melissa Ianetta

**Publications:** 

## R305A100786

<u>Teaching and Learning Argumentative Writing in High School English Language Arts Classrooms</u>

Ohio State University Newell, George David Bloome, Alan Hirvela, and Helen Marks

## **Publications:**

Newell, G.E., Vanderheide, J. and Wynhoff Olsen, A. (In Press). Learning From (And With) Expert Teachers Of Argumentative Writing. *Adolescent Literacy In Perspective*.

Newell, G.E., Vanderheide, J., and Wilson, M. (In Press). Best Practices In Teaching Informative Writing From Sources. In S. Graham, C. Macarthur and A. Fitzgerald (Eds.), *Best Practices In Writing Instruction* (2 Ed.). New York, NY: Guilford Press.

Newell, G.E., Beach, R.W., Smith, J. and Vanderheide, J. (2011). <u>Teaching and Learning Argumentative Reading and Writing: A Review Of Research</u>. *Reading Research Quarterly*, 46(3), 273–304. Dx.Doi.Org/10.1598/RRQ.46.3.4.

Wynhoff Olsen, A., Ryu, S. and Bloome, D. (In Press). "(Re)Constructing Rationality and Social Relations In The Teaching and Learning Of Argumentative Writing In Two High School English Language Arts Classrooms." *LRA Yearbook*.

# 2011

# R305A110148

**Development and Validation of Online Adaptive Reading Motivation Measures** 

University of Kansas Center for Research, Inc.

Hock, Michael

Neal Kingston and Irma Brasseur (University of Kansas), Marcia Davis (Johns Hopkins University), Stephen Tonks (Northern Illinois University)

**Scale-up Evaluation of Reading Intervention for First Grade English Learners** 

University of Houston Francis, David Sharon Vaughn (University of Texas at Austin)

**Publications:** 

# R305A110484

<u>Investigating the Impact of Classroom Instruction and Literacy Skills on Writing Achievement in First Grade</u>

University of Delaware Coker, David Charles A. MacArthur and Elizabeth Farley-Ripple

**Publications:** 

# 2012

# R305A120086

Computer Based Assessment System for Reading (CBAS-R): Skills Analysis and Progress Monitoring

University of Minnesota Christ, Theodore Barbara Taylor and David J. Weiss

**Publications:** 

# R305A120147

<u>Development of Oral and Silent Reading Fluency and Their Relation with Reading Comprehension in First Through Third Grade Students</u>

Florida State University Kim, Young Suk Yaacov Petscher

**Publications:** 

# R305A120320

Exploring the Contribution of Social, Cognitive, and Linguistic Factors on the Development of Style Shifting by Young African-American English-speaking Students Learning to Read

Regents of the University of Michigan

Craig, Holly

Ed Rothman, Nell Duke (Michigan State University)

Related IES Projects: <u>Developing Contrastive Analysis Techniques for Teaching Academic</u> Classroom English to Young African American English-Speaking Students (R305A100284)

Publications:

# R305A120368

**Peer Assisted Writing Strategies (PAWS)** 

University of Pittsburgh Puranik, Cynthia Christopher Lemons

**Publications:** 

# R305A120707

**Exploration of Automated Writing Strategy Instruction for Adolescent Writings Using The Writing Pal** 

Arizona State University McNamara, Danielle Rod Roscoe, James Blasingame

Related IES Projects: <u>The Writing Pal: An Intelligent Tutoring System that Provides Interactive Writing Strategy Training</u> (R305A080589)

**Publications:** 

# R305A120785

The Roles of Instruction and Component Skills in Reading Achievement

Georgia State University Research Foundation Branum-Martin, Lee Pat Taylor and Coleen Carlson (University of Houston)

Related IES Projects: <u>Cross-Classified Structural Equations Model: Development of an OpenMX Module and its Application to Multiyear Assessment and Intervention Data in Literacy Research</u> (R305D090024) and <u>Language and Literacy Abilities in Spanish Language Speaking Children</u> (R305A100272)

# 2013

# R305A130131

Academic Language and Writing for Children in Kindergarten to Fourth Grade—A Longitudinal Study

Florida State University Kimg, Young Suk Yaacov Petscher, Christopher Schatschneider

**Publications:** 

# R305A130327

<u>Development of a Web-Based Writing Partner (Strategic Writing Assisted by intelligent tutoring for 5th grade Youth (SWAY)) to Improve Writing Persuasive Essays for 5th Grade Students</u>

Pennsylvania State University

Kausalai, Wijekumar

Steve Graham and Karen R. Harris (Arizona State University), Bonnie J.F. Meyer and Pui-Wa Lei (The Pennsylvania State University)

# READING FOR UNDERSTANDING RESEARCH INITIATIVE

# 2010 R305F100002

The Language Bases of Reading Comprehension
Ohio State University

Justice, Laura

Project Website: <a href="http://larrc.ehe.osu.edu/">http://clrc.ehe.osu.edu/projects/larrc/</a>

**Publications:** 

# R305F100005

Assessing Reading for Understanding: A Theory-based, Developmental Approach
Education Testing Service
Sabatini, John

Sabatini, John Tenaha O'Reilly

Project Website: <a href="http://www.ets.org/research/topics/reading\_for\_understanding/">http://www.ets.org/research/topics/reading\_for\_understanding/</a>

Related IES Projects: <u>Developing Reading Comprehension Assessments Targeting Struggling Readers</u> (R305G040065)

### **Publications:**

Calhoon, M., and Petscher, Y. (2013). Individual and Group Sensitivity To Remedial Reading Program Design: Examining Reading Gains Across Three Middle School Reading Projects. *Reading and Writing*, 26(4): 565-592.

Foorman, B.R., Petscher, Y., and Bishop, M. (2012). The Incremental Variance Of Morphological Knowledge To Reading Comprehension In Grades 3–10 Beyond Prior Reading Comprehension, Spelling, and Text Reading Efficiency. *Learning and Individual Differences*, 22(6): 792-798.

Foorman, B., and Wanzek, J. (in press). Classroom Reading Instruction for All Students. In S.R. Jimerson, M.K. Burns and A.M. VanDerHeyden (Eds.), The Handbook of Response to Intervention: The Science and Practice of Multi-Tiered Systems of Support. New York, NY: Springer Science, Inc.

Mislevy, R.J., and Sabatini, J. (2012). How Research on Reading and Research on Assessment are Transforming Reading Assessment (or if they aren't, how they ought to). In J.P. Sabatini, E.R. Albro and T. O'Reilly (Eds.), *Measuring up: Advances in How We Assess Reading Ability* (pp. 119-134). Lanham, MD: Rowan and Littlefield.

O'Reilly, T., Sabatini, J., Bruce, K., Pillarisetti, S., and McCormick, C. (2012). Middle School Reading Assessment: Measuring What Matters Under an RTI Framework. *Reading Psychology Special Issue: Response to Intervention*, 33 (1-2): 162-189.

Petscher, Y., Cummings, K., Biancarosa, G., and Fien, H. (2013). Advanced (Measurement) Applications Of Curriculum-Based Measurement In Reading. *Assessment For Effective Intervention*, 38(2): 71-75.

Petscher, Y., Connor, C.M., and Al Otaiba, S. (2012). Psychometric Analysis of the Diagnostic Evaluation of Language Variation Assessment for Effective Intervention, 37: 244-251.

Petscher, Y., Cummings, K.D., Biancarosa, G., and Fien, H. (2013). Advanced (Measurement) Applications of Curriculum-Based Measurement in Reading. *Assessment for Effective Intervention*, *38*: 71-75.

Petscher, Y., Logan, J.A.R. and Zhou, C. (2013). Extending conditional means modeling: An introduction to quantile regression (pp. 3-33). In Y. Petscher, C. Schatschneider and D.L. Compton (Eds.), *Applied Quantitative Analysis In Education and Social Sciences*. New York: Routledge.

Piasta, S.B., Petscher, Y., and Justice, L.M. (2012). Diagnostic Efficiency of Preschool Letter-Naming Benchmarks: Relations with First-Grade Literacy Achievement. *Journal of Educational Psychology*, 104: 945-958.

Sabatini, J. and O'Reilly, T. (in press). Rationale for a New Generation of Reading Comprehension Assessments. In P. McCardle (Ed.), *Unraveling the Behavioral, Neurobiological, and Genetic Components of Reading Comprehension*. Baltimore, MD: Brookes Publishing Co.

Solari, E., Petscher, Y., and Folsom, J.S. (2012). Differentiating Literacy Growth of ELL Students with SLD from Other High-Risk Subgroups and General Education Peers: A Cross-Sectional Study of Grades 3-10. *Journal of Learning Disabilities*.

## R305F100007

Reading for Understanding Across Grades 6 through 12: Evidence-Based Argumentation for Disciplinary Learning

Board of Trustees of the University of Illinois Goldman, Susan

Project Website: http://www.projectreadi.org/index.html

## Publications:

Braash, J., Goldman, S.R. and Wiley, J. (in press). The Influences Of Text and Reader Characteristics On Learning From Refutations In Science Texts. *Journal of Educational Psychology*.

Britt, M.A., Goldman, S.R., and Rouet, J-F. (2013). Foreword. In M.A. Britt, S.R. Goldman, and J.F. Rouet (Eds.). *Reading: From Words to Multiple Texts* (pp. viii-xiv). NY: Routledge, Taylor and Francis Group.

Britt, M.A., Rouet, J.F., and Braasch, J.A. (2013). Expanding the Documents Model Framework. In M. A. Britt, S. R. Goldman, and J. F. Rouet (Eds.). *Reading: From Words to Multiple Texts* (pp. 160 - 179). NY: Routledge, Taylor and Francis Group.

Connor, C., Goldman, S.R., and Fishman, B. (in press). Reading and Writing Technology. To appear in M. Spector, M.D. Merrill, J. Elen, and M.J. Bishop (Eds.), 4<sup>th</sup> AECT Handbook of Research on Educational Communications and Technology.

Goldman, S.R. (2012). Adolescent Literacy: Learning and Understanding Content. *Future of Children, 22*, no. 2: 89 – 116.

Goldman, S.R., Braasch, J.G., Wiley, J., Graesser, A.C., and Brodowinska, K. (2012). Comprehending and Learning From Internet Sources: Processing Patterns Of Better and Poorer Learners. *Reading Research Quarterly*, 47(4): 356-381.

Goldman, S.R., Lawless, K.A., and Manning, F. (2013). Research and Development of Multiple Source Comprehension Assessment. In M.A. Britt, S.R. Goldman, and J.F. Rouet (Eds.). *Reading: From Words to Multiple Texts* (pp. 180 – 199). NY: Routledge, Taylor and Francis Group.

Goldman, S.R., and Scardamalia, M. (2013). Managing, Understanding, Applying, and Creating Knowledge In The Information Age: Next-Generation Challenges and Opportunities. *Cognition and Instruction*, 31(2): 255-269.

Griffin, T.D., Wiley, J., Britt, M.A. and Salas, C. (2012). The Role Of CLEAR Thinking In Learning Science From Multiple-Document Inquiry Tasks. *International Electronic Journal of Elementary Education*, *5*(1): 63-78.

Griffin, T.D., Wiley, J. and Salas, C. (in press). Supporting Effective Self-Regulated Learning: The Critical Role Of Monitoring. To appear in R. Azevedo and V. Aleven (Eds.) *International Handbook of Metacognition and Learning Technologies*. Springer Science.

Hastings, P., Hughes, S., Magliano, J.P., Goldman, S.R. and Lawless, K. (2012). Assessing the Use of Multiple Sources in Student Essays. *Behavior Research Methods*, 44(3): 622-633.

Hastings, P., Hughes, S., Magliano, J.P., Goldman, S.R., and Lawless, K. (2011). Text Categorization for Assessing Multiple Documents Integration, or John Henry Visits a Data Mine. In G. Biswas, S. Bull, J. Kay, and A. Mitrovic (eds). *Proceedings of the 15<sup>th</sup> International Conference on Artificial Intelligence in Education, Lecture Notes in Artificial Intelligence* (pp. 115-1122). Berlin, Germany: Spring-Verlag.

Hinze, S.R., Wiley, J. and Pellegrino, J.W. (in press). To Test Or Not To Test? Retrieval Practice Conditions That Aid Or Hinder Retention and Comprehension Of Science Texts. *Journal of Memory and Language*.

Lee, C.D. (2011). Education and the Study of Literature. Scientific Study of Literature, 1(1): 49-58.

Levine, S., Horton, W.S. (in press). Using Affective Appraisal To Help Readers Construct Literary Interpretations. *Scientific Study of Literature*.

Magliano, J.P., and Graesser, A.C. (2012). Computer-Based Assessment Of Student-Constructed Responses. *Behavior Research Methods*, 44(3): 608-621.

Voss, J.F. and Wiley, J. (2013). From Decoding to Documents: The Acquisition and Interaction of Comprehension Skills. In M. A. Britt, S. R. Goldman, and J. F. Rouet (Eds.). *Reading: From Words to Multiple Texts* (pp. 200 - 205). NY: Routledge, Taylor and Francis Group.

# R305F100013

<u>Understanding Malleable Cognitive Processes and Integrated Comprehension</u> Interventions for Grades 7–12

University of Texas at Austin Vaughn, Sharon

## **Publications:**

Fall, A., and Roberts, G. (2012). <u>High School Dropouts: Interactions Between Social Context, Self-Perceptions, School Engagement, and Student Dropout.</u> *Journal of Adolescence*, 35(4): 787-798.

Foorman, B. and Wanzek, J. (in press). Classroom Reading Instruction For All. In S.R. Jimerson, M.K. Burns, and A.M. Van Der Heyden (Eds.), *The Handbook of Response to Intervention*.

Hall, C., Kent, S.C., McCulley, L., Davis, A., and Wanzek, J. (in press). Increasing Text Comprehension in Social Studies for Students with Learning Disabilities: Mnemonics and Graphic Organizers. *Teaching Exceptional Children*.

Reed, D.K., Wexler, J., and Vaughn, S. (2012). *RTI For Reading At The Secondary Level: Recommended Literacy Practices and Remaining Questions*. New York, NY US: Guilford Press.

Roberts, G., Fletcher, J., Stuebing, K., Barth, A., and Vaughn, S. (in press). Treatment Effects For Older Struggling Readers: An Application Of Moderated Mediation. *Learning and Individual Differences*.

Solis, M., Vaughn, S., Swanson, E., and McCulley, L.(2012). <u>Collaborative Models of Instruction: The Empirical Foundations of Inclusion and Co-Teaching</u>. *Journal of School Psychology*, 49: 498-510.

Swanson, E., Hairrell, A., Kent, S., Ciullo, S., Wanzek, J., Vaughn, S. (2012). A Synthesis and Metaanalysis of Reading Comprehension Interventions Delivered in Social Studies to Students with Learning Disabilities. *Journal of Learning Disabilities*.

Swanson, E., Solis, M., Cuillo, S., and McKenna, J.W. (2012). Special Education Teachers' Perceptions and Instructional Practices in Response to Intervention Implementation. *Learning Disability Quarterly*, *35*: 115-126.

Swanson, E.A., Wanzek, J., Vaughn, S., Haring, C., Ciullo, S., and McCulley, L. (2011). Intervention Fidelity in Special and General Education Research Journals. *Journal of Special Education*, published online 26 August 2011.

Swanson, E. and Wanzek, J. (in press). Practices to Support Comprehension of Social Studies Content for Students with Reading Difficulties. *Intervention in School and Clinic*.

Vaughn, S. and Solis, M. (in press). Why Intensive Interventions Are Necessary For Secondary Students. In *Estonia book*, South Dartmouth, MA: the Dyslexia Foundation.

Vaughn, S., Swanson, E., Roberts, G., Wanzek, J., Stillman-Spisak, S. J., Solis, M., and Simmons, D. (2013). Improving Reading Comprehension and Social Studies Knowledge in Middle School. *Reading Research Quarterly*, 48(1): 77-93.

Vaughn, S., Swanson, E., and Solis, M. (in press). Reading Comprehension For Adolescents With Significant Reading Problems. In L. Swanson (Ed.), *Handbook on Research in Learning Disabilities*.

Vaughn S., Wanzek, J., and Denton, C. (in press). Teaching Elementary Students with Learning Difficulties. In L. Florian (Ed.), *Handbook of Special Education*. Thousand Oaks, CA: Sage.

Wanzek, J., Vaughn, S., Scammacca, N., Metz, K., Murray, C., Roberts, G., and Danielson, L. (in press). Extensive reading interventions for older struggling readers: Implications from research. *Review of Educational Research*.

# R305F100026

# Catalyzing Comprehension Through Discussion and Debate

Strategic Education Research Partnership Institute Donovan, Mary Suzanne Catherine Snow

Project Website: http://ccdd.serpmedia.org/

Related IES Projects: Word Generation: An Efficacy Trial (R305A090555)

## **Publications:**

Bellino, M.J. and Selman, R.L. (2011). High School Students' Understanding of Personal Betrayal in a Socio-Historical Context of Ethnic Conflict: Implications for Teaching History. *International Journal of Historical Learning, Teaching, and Research*, 10(1): 29-43.

Elizabeth, T., Anderson, T., Snow, E., and Selman, R. (2012). Academic Discussions: An Analysis of Instructional Discourse and an Argument for an Integrative Assessment Framework. *American Education Research Journal*, published online 20 August 2012.

Fisher, K.W. (2013). Constructing A Scientific Groundwork For Learning and Teaching. *Journal Of Bio-Education*, *I*(1): 13-29.

Fisher, K.W., and van Geert, P. (2013). Dynamic Development Of Brain and Behavior. In P. Molenaar and R. Lerner (Eds.), *Nonlinear Models Of Learning and Development*. Pennsylvania State University: Pennsylvania State University Press.

Frost, J., Ottern, E., Snow, C., Hagtvet, B., Lyster, S., White, C. (in press). The Conceptual Nature Of Gain I Nvocabulary Research: An Analysis Of Vocabulary Data From School Children. *Scandinavian Journal of Educational Research*.

Selman, R.L. and Kwok, J. (2012). Past, Present, and Future: Using Literature to Promote Social Awareness and Literacy in Children. In B. Falk. (Ed.), *Defending Childhood: Keeping the Promise of Early Education* (pp. 173-191). New York: Teachers College Press.

Snow, C., Uccelli, P., and White, C. (2013). Bedingungen und Bedeutung des Erwerbs von Bildungssprache durch Heranwachsende. In C. Rosebrook and A. Bertschi-Kaufmann (Eds.), *Literalitat erfassen: Bildungspolitisch, kulturell, individuell* (pp. 29-39). Base: Beltz Juventa.

# R305F100027

<u>Examining Effective Intervention Targets, Longitudinal Intensity, and Scaling Factors for Pre-K to 5th Grade Student Comprehension</u>

Florida State University Lonigan, Christopher Carol Connor

Project Website: http://rfu.fcrr.org/index.htm

## Publications:

Apel, K., Brimo, D., Diehm, E., and Apel, L. (2013). Morphological Awareness Intervention With Kindergartners and First- and Second-Grade Students From Low Socioeconomic Status Homes: A Feasibility Study. *Language, Speech, and Hearing Services In Schools*, *44*(2): 161-173.

Apel, K., Diehm, E., and Apel, L. (2013). Using Multiple Measures Of Morphological Awareness To Assess Its Relation To Reading. *Topics In Language Disorders*, *33*(1): 42-56.

Tang, S., Reilly, R.G., and Vorstius, C. (2012). EyeMap: A Software System For Visualizing and Analyzing Eye Movement Data In Reading. *Behavior Research Methods*, 44(2): 420-438.

# RESEARCHER-PRACTITIONER PARTNERSHIPS IN EDUCATION RESEARCH

# 2013

## R305H130012

<u>Creating a Monitoring System for School Districts to Promote Academic, Social, and Emotional Learning: A Researcher-Practitioner Partnership</u>

Collaborative for Academic, Social, and Emotional Learning

Weissberg, Roger P.

Paul LaMarca (Washoe County School District)

Partner: Washoe County School District (Nevada)

# R305H130026

<u>Designing a RCT Experiment to Test the Impact of Innovative Interventions and Policies</u> <u>for Postsecondary Developmental Education: A RAND—TX Higher Education</u> Coordinating

RAND Corporation
Miller, Darwin Trey
David Gardner (Texas A&M University)

Partner: The Texas Higher Education Coordinating Board

# R305H130030

Applicants at the Doorstep: Improving Hiring Practices through a Better Understanding of the Link Between Applicant Information and Teacher Quality

University of Washington Goldhaber, Dan

Angela Jones (Spokane Public Schools)

Partner: Spokane Public Schools

## R305H130048

New York City Partnership for College Readiness and Success

New York University

Kemple, James

Simone D'Souza (NYCDOE) and David Crook (CUNY)

Partners: The Research Alliance for New York City Schools at New York University (NYU), the New York City Department of Education (NYCDOE), and the City University of New York (CUNY)

# R305H130059

Academic Trajectories and Policies to Narrow Achievement Gaps in San Diego

University of California, San Diego

Betts, Julian

Peter Bell (SDUSD); Dina Policar (SDUSD); Ronald Rode (SDUSD)

Partner: The San Diego Unified School District (SDUSD); Partnership Name: San Diego Education Research Alliance at UCSD (SanDERA).

# R305H130080

What Works for Title I Schools: Understanding the Contributors and Barriers to School Improvement

Arizona State University

Kurz. Alexander

Carrie Giovannone (ADE)

Parnters: Arizona State University (ASU); the Arizona Department of Education (ADE)

# SOCIAL AND BEHAVIORAL CONTEXT FOR ACADEMIC LEARNING

# 2008

# R305A080253

The Chicago Social and Character Development Trial: Extension to Grade 8
Oregon State University
Flay, Brian

Related IES Projects: Positive Action for Social and Character Development (R305L030072)

### **Publications:**

Bavarian, N., Lewis, K., DuBois, D., Acock, A., Vuchinich, S., Silverthorn, N., Snyder, F., Day, J., Ji., P., Flay, B.R. (in press) Using Social-Emotional and Character Development to Improve Academic Outcomes: A Matched-Pair, Cluster- Randomized Controlled Trial in Low-Income, Urban Schools. *Journal of School Health*.

Flay, B.R., and Allred, C.G. (2010). The Positive Action Program: Improving Academics, Behavior and Character By Teaching Comprehensive Skills For Successful Learning and Living. In Lovat, T. and Toomey, R. (Eds). *International Handbook on Values Education and Student Well-Being*. Dirtrecht: Springer.

Lewis, K.M., Bavarian, N., Snyder F., Acock, A Day, DuBois, D.L., Ji, P., Schure, M.B., Silverthorn, N., Vuchinich, S. and Flay, B.R. (2012) Direct and Mediated Effects of a Social-Emotional and Character Development Program on Adolescent Substance Use. *International Journal of Emotional Education*, *4*(1): 56-78.

Lewis, K.M., Schure, M.B., Bavarian, N., DuBois, D.L., Day, J., Ji, P., and ... Flay, B.R. (2013). Problem Behavior and Urban, Low-Income Youth: A Randomized Controlled Trial Of Positive Action In Chicago. *American Journal Of Preventive Medicine*, 44(6): 622-630.

Li, K-K, Washburn, I., DuBois, D.L., Vuchinich, S., Ji, P., Brechling, V., Day, J., Beets, M.W., Acock, A.C., Berbaum, M., Snyder, F., and Flay, B.R. (2011). Effects Of The Positive Action Program On Problem Behaviors In Elementary School Students: A Matched-Pair Randomized Control Trial In Chicago. *Psychology and Health*, *26*(2): 187-204.

Vuchinich, S., Flay, B.R., Aber, L., and Bickman, L. (2012) Person Mobility In The Design and Analysis Of Cluster-Randomized Cohort Prevention Trials. *Prevention Science*, 33: 300-313.

Washburn, I.J., Acock, A.C., Vuchinich, S., Snyder, F.J., Li, K.-K., Ji, P., Day, J., DuBois, D.L., and Flay, B.R. (2011). Effects Of A Social-Emotional and Character Development Program On The Trajectory Of Behaviors Associated With Character Development: Findings From Three Randomized Trials. *Prevention Science*, *12*: 314-323.

# A Randomized Controlled Trial of the Combination of Two Preventive Interventions Johns Hopkins University Ialongo, Nicholas

Related IES Projects: <u>Identifying Predictors of Program Implementation to Inform a Tailored</u> Teacher Coaching Process (R305A130060)

#### **Publications:**

Becker, K., and Domitrovich, C. (2011). Conceptualization, Integration, and Supports Of Evidence-Based Interventions In Schools. *School Psychology Review*, 40: 582-589.

Domitrovich, C.E., Bradshaw, C.P., Greenberg, M.T., Embry, D., Poduska, J.M., and Ialongo, N.S. (2010). Integrated Models Of School-Based Prevention: Logic and Theory. *Psychology In The Schools*, 47: 71–88.

Jo, B., Ginexi, E., and Ialongo, N. (2010). Handling Missing Data In Randomized Experiments With Noncompliance. *Prevention Science*, 11: 384-396.

Jo, B., Wang, C-P., and Ialongo, N.S. (2009). Using Latent Outcome Trajectory Classes In Causal Inference. *Statistics and Its Interface*, 2: 403-412.

Reinke, W.M., Herman, K.C., and Ialongo, N.S. (2012). Developing and Implementing Integrated School-Based Mental Health Interventions. *Advances In School Mental Health Promotion*, *5*: 158-160.

Reinke, W.M., Herman, K.C., Darney, D., Pitchford, J., Becker, K., Domitrovich, C., and Ialongo, N. (2012). Using The Classroom Check-Up To Support Implementation Of PATHS To PAX. *Advances In School Mental Health Promotion*, *5*: 220-232.

Stuart, E.A. and Ialongo, N.S. (2010). Matching Methods For Selection Of Subjects For Follow-Up. *Multivariate Behavioral Research*, *45*: 746-765.

#### R305A080337

<u>Development and Validation of a Teacher Progress Monitoring Scale for Elementary School Teachers</u>

Rutgers University Reddy, Linda

#### **Publications:**

King, S., and Waschbusch, D.A. (2010). Aggression In Children With Attention-Deficit/Hyperactivity Disorder. *Expert Review Of Neurotherapeutics*, 10(10): 1581-1594.

<u>Testing the Efficacy of INSIGHTS in Enhancing the Academic Learning Context</u>
New York University

McClowry, Sandra

#### **Publications:**

Collins, A., Colwell, N., and McClowry, S.G. (2012). Maintaining Fidelity Of The Intervention. In Melnyk, B. M., and Morrison-Beedy, D. (Eds.), *Designing, Conducting, Analyzing and Funding Intervention Research: A Practical Guide For Success* (pp. 215–229). New York, NY: Springer.

McClowry, S.G., and Collins, A. (2012). Temperament-based intervention: Reconceptualized from a response to intervention framework. In R. Shiner and M. Zentner (Eds.), *Handbook of childhood temperament* (pp. 607–627). New York, NY: Guilford Press.

Shiner, R.L., Buss, K.A., McClowry, S.G., Putman, S.P., Saudino, K.J., and Zentner, M. (2012). What Is Temperament Now? Assessing Progress In Temperament Research In The 25 Years Following Goldsmith et al. (1987). *Child Development Perspectives*, 6(4): 436-444.

#### R305A080562

<u>Vouth through Instruction in Effective Coping Supported by Mentoring Relationships</u>

DePaul University

Grant, Kathyrn

#### Publications:

Farahmand, F.K., Duffy, S.N., Tailor, M., DuBois, D.L., Lyon, A.R., Grant, K.E., Czarlinski, J., Masini, O., Zander, K.J., and Nathanson, A.M. (2012). Community-Based Mental Health and Behavioral Programs for Low-Income Urban Youth: A Meta-Analytic Review. *Clinical Psychology: Science and Practice*, 19(2): 195-215.

Farahmand, F.K.., Grant, K.E., Polo, A., Duffy, S.N., and Dubois, D.L. (2011). School-Based Mental Health and Behavioral Programs For Low-Income Urban Youth: A Systematic and Meta-Analytic Review. *Clinical Psychology: Science and Practice*, *18*: 372-390.

## 2009

# R305A090085

**Enhancing Effectiveness and Connectedness among Early Career Teachers in Urban Schools** 

University of Illinois at Chicago

Shernoff, Elisa

Marc Atkins, Stacy Frazier, Ané Maríñez-Lora, Bridget Hamre, Mark Smylie and Michelle Parker-Katz

#### **Publications:**

Shernoff, E.S., Marinez-Lora, A., Frazier, S.L., Jakobsons, L.J., Atkins, M.S., and Bonner, D. (2011). Teachers Supporting Teachers in Urban Schools: What Iterative Research Designs Can Teach Us. *School Psychology Review*, 40: 465-485.

Establishing Positive Behavior Supports in Elementary School Instructional Settings IRIS Media, Inc.
Marquez, Brion

**Publications:** 

#### R305A090175

Mindfulness-Based Academic Achievement Program for Middle School
Innovation Research and Training, Inc.
Parker, Alison
Janis Kupersmidt

**Publications:** 

#### R305A090179

<u>Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (CARE)</u>

Pennsylvania State University Jennings, Patricia Mark Greenberg

Related IES Projects: <u>Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (CARE)</u>: A Cluster Randomized Controlled Efficacy Trial (R305A120180)

#### **Publications:**

Jennings, P.A., Snowberg, K.E., Coccia, M.A., and Greenberg, M.T. (2011). Improving Classroom Learning Environments By Cultivating Awareness and Resilience In Education (CARE): Results Of Two Pilot Studies. *Journal Of Classroom Interaction*, 46(1): 37-48.

#### R305A090305

Organizational Skills Interventions for Children with ADHD

Children's Hospital Medical Center Langberg, Joshua Jeff Epstein

Grant Transferred to: Virginia Commonwealth University (R305A100996)

Related IES Projects: Efficacy of an Organizational Skills Intervention for Middle School Students with ADHD (R305A130011)

Becker, S.P., and Langberg, J.M. (2012). Sluggish Cognitive Tempo Among Young Adolescents With ADHD: Relations To Mental Health, Academic, and Social Functioning. *Journal of Attention Disorders*. Advance online publication.

Langberg, J.M., Becker, S.P., Epstein, J.N., Vaughn, A.J., and Girio-Herrera, E. (2012). Predictors of Response and Mechanisms of Change in an Organizational Skills Intervention for Students with ADHD. *Journal of Child and Family Studies*.

Langberg, J.M. (2011). *Homework, Organization and Planning Skills (HOPS) Interventions: A Treatment Manual.* Bethesda, MD: National Association of School Psychologists (NASP) Publications.

Langberg, J.M., Epstein, J.N., Becker, S.P., GirioHerrera, E., and Vaughn, A.J. (2012). Evaluation of the Homework, Organization, and Planning Skills (HOPS) Intervention For Middle School Students With Attention Deficit Hyperactivity Disorder As Implemented By School Mental Health Providers. *School Psychology Review*, *41*(3): 342-364.

Langberg, J.M., Epstein, J.N., Girio-Herrera, E., Becker, S.P., Vaughn, A.J., and Altaye, M. (2011). Materials Organization, Planning, and Homework Completion In Young Adolescents With ADHD: Impact On Academic Performance. *School Mental Health*, *3*(2): 93-101.

Langberg, J.M., Vaughn, A.J., Williamson, P., Epstein, J.N., Girio-Herrera, E., and Becker, S.P. (2011). Refinement Of An Organizational Skills Intervention For Adolescents With ADHD For Implementation By School Mental Health Providers. *School Mental Health* 3(3): 143-155.

#### R305A090307

Examining Variation in the Impact of School-Wide Positive Behavioral Interventions and Supports (PBIS)

Johns Hopkins University Bradshaw, Catherine Phillip Leaf and Nicolas Ialongo

#### Publications:

Bottiani, J., and Bradshaw, C.P. (in press). Social-emotionallearning. In E. Anderman and J. Hattie (Eds). *International Handbook of Student Achievement*. New York: Routledge.

Bottiani, J., Bradshaw, C.P., Rosenberg, M., Hershfeldt, P., Pell, K., and Debnam, K.J. (in press). The Double Check Model In A Response To Intervention Framework: Culturally Responsive Practices For Students With Learning Disabilities. *Insights on Learning Disabilities*.

Bradshaw, C.P., and Haynes, K.T. (2012). Building A Science Of Partnership-Focused Research: Forging and Sustaining Partnerships To Support Child Mental Health Prevention and Services Research. *Administration and Policy in Mental Health and Mental Health Services Research*, 39(4): 221-224.

Bradshaw, C.P., and Leaf, P.J. (in press). Examining The Association Between Implementation and Outcomes: State-Wide Scale-Up Of School-Wide Positive Behavior Intervention and Supports. *Journal of Behavioral Health Services and Research*.

Bradshaw, C.P., and Pas, E.T. (2011). A State-Wide Scale-Up Of School-Wide Positive Behavioral Interventions and Supports (PBIS): Developing Systems To Support and Assess Adoption, Implementation, and Outcomes. *School Psychology Review, 40*: 530-548. Received honorable mention for Paper of the Year by National Association of School Psychologists.

Bradshaw, C.P., and Waasdorp, T. (2009). Measuring and Changing A 'Culture Of Bullying.'. *School Psychology Review*, 38(3): 356-361.

Bradshaw, C.P., Bottiani, J., Osher, D., Weissberg, R., and Sugai, G. (in press). Integrating Positive Behavior Supports and Social Emotional Learning. In Weist, M.D., Lever, N.A., Bradshaw, C.P., and Owens, J. (Eds.). *Handbook of School Mental Health: Advancing Practice and Research (second edition)*. New York: Springer.

Bradshaw, C.P., Goldweber, A., Fishbein, D., and Greenberg, M.T. (2012). Infusing Developmental Neuroscience Into School-Based Preventive Interventions: Implications and Future Directions. *Journal Of Adolescent Health*, *51*(2, Suppl): S41-S47.

Bradshaw, C.P., Mitchell, M.M., O'Brennan, L.M., and Leaf, P.J. (2010). <u>Multilevel Exploration of Factors Contributing to the Overrepresentation of Black Students in Office Disciplinary Referrals</u>. *Journal of Educational Psychology, 102* (2): 508–520.

Bradshaw, C.P., Pas, E., Barrett, S., Bloom, J., Hershfeldt, P., Alexander, A., McKenna, M., and Leaf, P. (2012). A State-Wide Partnership To Promote Safe and Supportive Schools: The PBIS Maryland Initiative. *Administration and Policy in Mental Health and Mental Health Services Research*, *39*(4), 225-237.

Bradshaw, C.P., Pas, E.T., Goldweber, A., Rosenberg, M. S., and Leaf, P. J. (2012). Integrating School-Wide Positive Behavioral Interventions and Supports With Tier 2 Coaching To Student Support Teams: The PBIS Model. *Advances In School Mental Health Promotion*, *5*(3): 177-193.

Bradshaw, C.P., Waasdorp, T.E, and Leaf, P.J. (in press). The Impact Of School-Wide Positive Behavioral Interventions and Supports (SWPBIS) On Behavior Problems. *Pediatrics*.

Debnam, K.J., Pas, E.T., and Bradshaw, C.P. (2012). Secondary and Tertiary Support Systems In Schools Implementing School-wide Positive Behavioral Interventions and Supports: A Preliminary Descriptive Analysis. *Journal of Positive Behavior Interventions*, 14: 142-152.

Debnam, K.J., Pas, E.T., and Bradshaw, C.P. (in press). Factors Influencing Staff Perceptions Of Support For Secondary and Tertiary Support Interventions. *Journal of Emotional and Behavioral Disorders*.

Domitrovich, C.E., Bradshaw, C.P., Greenberg, M.T., Embry, D., Poduska, J.M., and Ialongo, N.S. (2010). <u>Integrated Models of School-Based Prevention: Logic and Theory</u>. *Psychology in the Schools, 47*(1): 71–88.

Duong, J., and Bradshaw, C.P. (in press). Using The Extended Parallel Process Model To Examine Teachers' Likelihood Of Intervening In Bullying. *Journal of School Health*.

Goldweber, A., Waasdorp, T. E., and Bradshaw, C.P. (in press). Examining The Link Between Bullying Profiles and Perceptions Of School Climate: A Latent Class Approach. *Journal of School Psychology*.

Hershfeldt, P.A., Pell, K., Sechrest, R., Pas, E.T., and Bradshaw, C.P. (2012). Lessons Learned Coaching Teachers In Behavior Management: The Phisplus Coaching Model. *Journal Of Educational and Psychological Consultation*, 22(4): 280-299.

Hershfeldt, P.A., Rosenberg, M., and Bradshaw, C.P. (2010). <u>Function-Based Thinking: A Multi-Tiered Decision Making Model For Addressing Student Behavior Problems</u>. *Beyond Behavior*, *19*(3): 12-21.

Mendelson, T., Pas, E.T., Bradshaw, C.P., Leis, J., Leaf, P.J., and Rebok, G. (2012). The Logic and Practice Of Prevention. In W. Eaton (Ed.), *Public Mental Health* (pp. 459-509). New York: Oxford.

Mitchell, M.M., Bradshaw, C.P., and Leaf, P.J. (2010). Student and Teacher Perceptions Of School Climate: A Multilevel Exploration Of Patterns Of Discrepancy. *Journal of School Health*, 80(6): 271-279.

Pas, E.T., and Newman, D.L. (in press). Teacher Mentoring, Coaching, and Consultation. In J.A.C. Hattie and anderman, E.M. (Eds.), *International Handbook of Student Achievement*. Routledge Publishing Company.

Pas, E.T., Bradshaw, C.P., and Mitchell, M.M. (2011). Examining The Validity Of Office Discipline Referrals As An Indicator Of Student Behavior Problems. *Psychology in the Schools*, 48: 541-555.

Pas, E.T., Bradshaw, C.P., and Cash, A. (in press). Coaching Classroom-Based Preventive Interventions. In M. Weist, N. Lever, C.Bradshaw, and J. Owens (Eds.). *Handbook of School Mental Health, Second Edition*. Springer.

Pas, E.T., Bradshaw, C.P., and Hershfeldt, P.A. (2012). Teacher- and School-Level Predictors Of Teacher Efficacy and Burnout: Identifying Potential Areas Of Support. *Journal of School Psychology*, 50(1): 129-145.

Pas, E.T., Bradshaw, C.P., Hershfeldt, P.A., and Leaf, P.J. (2010). <u>A Multilevel Exploration of the Influence of Teacher Efficacy and Burnout on Response to Student Problem Behavior and School-Based Service School Use</u>. *School Psychology Quarterly*, *25*: 13–27.

Stuart, E., Cole, S., Bradshaw, C.P., and Leaf, P.J. (2011). The Use Of Propensity Scores To Assess The Generalizability Of Results From Randomized Trials. *The Journal of the Royal Statistical Society, Series A*, 174(2): 369-386.

Sullivan, T., and Bradshaw, C.P. (in press). Introduction To The Special Issue Of *Behavioral Disorders:* Serving The Needs Of Youth With Disabilities Through School-Based Violence Prevention Efforts. *Behavioral Disorders.* 

Waasdorp, T.E, Bradshaw, C.P., and Leaf, P.J. (2012). The Impact Of School-Wide Positive Behavioral Interventions and Supports (SWPBIS) On Bullying and Peer Rejection. *Archives of Pediatric and Adolescent Medicine*, 166(2): 149-156.

#### R305A090315

SECURe: Developing an Integrated Social, Emotional, and Cognitive Understanding and Regulation Intervention

University of Michigan

Morrison, Frederick

Daniel Keating, Robin Jacob, Stephanie Jones, and Nancy A. Madden

Effects of Classroom Management Training on Early Learning Skills

Duke University Murray, Desiree David Rabiner

**Publications:** 

#### R305A090386

<u>Development of the "4R-SUCCESS" Program Aimed at Improving Elementary Schoolaged Children Social and Scholastic Competence</u>

Arizona State University Ladd, Gary Becky Kochenderfer-Ladd

#### **Publications:**

Ladd, G.W., Kochenderfer-Ladd, B.K., Visconti, K.J., and Ettekal, I. (2012). Classroom Peer Relations and Children's Social and Scholastic Development: Risk Factors and Resources. In A.M. Ryan and G.W. Ladd (Eds.), *Peer relationships and adjustment to school*. Charlotte, NC: Information Age Publishing

# R305A090438

The Social Skills Improvement System Classwide Intervention Program: Social, Behavioral, and Academic Outcomes in the Intermediate Grades

Pennsylvania State University DiPerna, James Pui-Wa Lei

**Publications:** 

#### R305A090446

<u>Professional Development to Support and Sustain a Classroom Behavior Management Strategy</u>

American Institutes for Research Poduska, Jeanne Hendricks Brown, Anja Kurki, Carla Ford, and Wei Wang

#### **Publications:**

Poduska, J., Gomez, M., Capo, Z., Holmes, V. (2011). Developing A Collaboration With The Houston Independent School District: Testing The Generalizability Of A Partnership Model. *Administration and Policy in Mental Health and Mental Health Services Research*, 39(4): 258-267.

# 2010

#### R305A100064

**Minnesota Partnership for School Connectedness** 

University of Minnesota Resnick, Michael Sandra Christenson

**Publications:** 

#### R305A100094

The Career Passport Program: Development and Refinement

Cleveland State University Perry, Justin Donna Schultheiss, Graham Stead, Diane Corrigan

**Publications:** 

#### R305A100342

**Evaluation of a Video-Based Modeling Program to Promote Effective Teacher Classroom Management Practices** 

University of Missouri Reinke, Wendy Keith Herman, Melissa Stormont

#### **Publications:**

Herman, K.C., Borden, L.A., Reinke, W.M., and Webster-Stratton, C. (2011). The Impact Of The Incredible Years Parent, Child, and Teacher Training Programs On Children's Co-Occurring Internalizing Symptoms. *School Psychology Quarterly*, 26(3): 189-201.

Herman, K.C., Reinke, W.M., Bradshaw, C.P., Lochman, J.E., Boxmeyer, C.L., Powell, N.P., and ... Ialongo, N.S. (2012). Integrating the Family Check-up and the Parent Coping Power program. *Advances In School Mental Health Promotion*, *5*(3): 208-219.

Reinke, W.M., Herman, K.C., and Stormont, M. (2013). Classroom Level Positive Behavior Supports in Schools Implementing SW-PBIS: Identifying Areas for Enhancement. *Journal of Positive Behavior Interventions*, *15*: 39-50.

Reinke, W.M., Herman, K.C., Darney, D., Pitchford, J., Becker, K., Domitrovich, C., and Ialongo, N. (2012). Using The Classroom Check-Up Model To Support Implementation Of Paths To PATHS to PAX. *Advances In School Mental Health Promotion*, *5*(3): 220-232.

Reinke, W.M., Stormont, M., Clare, A., Latimore, T., and Herman, K.C. (2013). Differentiating Tier 2 Social Behavioral Interventions According To Function Of Behavior. *Journal Of Applied School Psychology*, 29(2): 148-166.

Reinke, W.M., Stormont, M., Webster-Stratton, C., Newcomer, L., and Herman, K.C. (2012). The Incredible Years Teacher Training: Using Coaching To Support Generalization To Real World Classroom Settings. *Psychology in the Schools*, 49: 416-428

Stormont, M. and Reinke, W.M. (2012). Using Coaching to Improve Classroom Implementation Fidelity Within School-wide Positive Behavior Support Systems. *Beyond Behavior*, 21: 11-19.

Stormont, M., and Reinke, W.M. (2013). Implementing Tier 2 social behavioral interventions: Current issues, challenges, and promising approaches. *Journal Of Applied School Psychology*, 29(2): 121-125.

Stormont, M., Herman, K.C., Reinke, W.M., David, K., and Goel, N. (in press). Latent Profile Analysis Of Teachers' Perceptions Of Parent Contact, Comfort and Endorsement Of School, *School Psychology Quarterly*.

Stormont, M., Reinke, W.M., and Herman, K.C. (2011). Teachers' Importance Ratings For Evidence-Based Behavioral Interventions. *Behavioral Disorders*, *37*: 19-29.

Stormont, M., Thomas, N.C., and van Garderen, D. (2012). Collaboration To Improve Student Outcomes: Current Issues and Innovative Approaches. *Psychology in the Schools, 49*: 399-401.

Stormont, M., Thomas, C., and van Garderen, D. (2012). Introduction To The Special Issue: Building Capacity To Improve Student Outcomes Through Collaboration: Current Issues and Innovative Approaches. *Psychology In The Schools*, 49(5): 399-401.

Webster-Stratton, C., Reinke, W.M., and Herman, K.C. (2011). The Incredible Years Teacher Training: The Methods and Principles That Support Adaptation and Dissemination With High Fidelity. *School Psychology Review*, 40: 509-529

Webster-Stratton, C., Reinke, W.M., Herman, K.C., and Newcomer, L.L. (2011). The Incredible Years Teacher Classroom Management Training: The Methods and Principles That Support Fidelity Of Training Delivery. *School Psychology Review*, 40(4): 509-529.

#### R305A100344

# <u>A Longitudinal Study of Teaching Practices, Classroom Peer Ecologies, and Youth Outcomes</u>

University of Illinois, Urbana-Champaign

Rodkin, Philip

Scott Gest, Tom Farmer (Pennsylvania State University)

#### **Publications:**

Gest, S.D., and Rodkin, P.C. (2011). Teaching Practices and Friendship Patterns In Elementary School Classrooms. *Journal of Applied Developmental Psychology*, 32: 288-296.

Logis, H., Ahn, H-J., Rodkin, P.C., and Gest, SD., (2013). Aggression, Prosociality, and Popular Status: Selection and Influence Processes in Friendship Networks. *Journal of Research on Adolescence*.

Rodkin, P.C. (2011, March). *Bullying and Children's Peer Relationships*. White paper for the White House Conference on Bullying Prevention. The White House, Washington D.C. [Reprinted in *Educational Leadership*, 69: 10-16]

This paper has been awarded the 2013 American Educational Research Association Division E (Counseling and Human Development) Distinguished Research Award.

Rodkin, P.C., and Gest, S.D. (2010). Teaching Practices, Classroom Peer Ecologies, and Bullying Behaviors Among Schoolchildren. In D.L. Espelage and S. Swearer (Eds.), *Bullying in North American Schools* (2nd ed.). New York: Routledge, Taylor, Francis.

Rodkin, P.C., and Ryan, A.M. (2012). Child and Adolescent Peer Relations In Educational Context. In K.R. Harris, S. Graham, T. Urdan, S. Graham, J.M. Royer, M. Zeidner (Eds.), *APA Educational Psychology Handbook, Vol 2: Individual Differences and Cultural and Contextual Factors* (pp. 363-389). Washington, DC US: American Psychological Association.

#### R305A100367

<u>Increasing Adolescent Engagement, Motivation, and Achievement: Efficacy of a Web-Based, Teacher Professional Development Model</u>

University of Virginia

Allen, Joseph

Anne Gregory (Rutgers, The State University of New Jersey), Robert C. Pianta and Amori Mikami (The University of Virginia)

#### **Publications:**

Gregory, A., Allen, J.P., Mikami, A., Hafen, C.A., and Pianta, R.C. (forthcoming). The Effectiveness Of A Teacher Professional Development Program In Reducing The Racial Disparity In Classroom Discipline Referrals. In D. Losen (Ed.), *Racial Inequity In School Discipline*. Los Angeles, CA: Center for civil rights remedy and the Civil rights project, UCLA.

Hafen, C., Allen, J.P., Mikami, A.Y., Gregory, A., Hamre, B.K., and Pianta, R.C. (2012). The Pivotal Role Of Adolescent Autonomy In Secondary Classrooms. *Journal of Youth and Adolescence*, 41: 245-255.

Mikami, A., Gregory, A., Allen, J.P., Pianta, R.C., and Lun, J. (2011). Effects Of A Teacher Professional Development Intervention On Peer Relationships In Secondary Classrooms. *School Psychology Review*, 40(3): 367-385.

Pianta, R.C., Hamre, B.K., and Allen, J.P. (2012). Teacher-Student Relationships and Engagement: Conceptualizing, Measuring, and Improving the Capacity of Classroom Interactions. *Handbook of Research on Student Engagement*, 365-386.

#### R305A100590

<u>Using an Empirically-supported Teacher Consultation Model to Facilitate the</u>
<u>Implementation of an Integrated Social-emotional Learning and Literacy Curriculum in Urban Elementary Schools</u>

University of Virginia Downer, Jason

Academic Achievement Outcomes from a Pre-K Family and School Intervention

New York University School of Medicine Brotman, Laurie

**Publications:** 

#### R305A100911

<u>Intrapersonal Factors Associated with Academic Success among High School Students in Advanced Placement and International Baccalaureate (AP-IB) Programs</u>

University of South Florida Suldo, Shannon Elizabeth Shaunessy

**Publications:** 

# 2011

#### R305A110079

**Supporting Early Adolescent Learning and Social Success - Project SEALS** 

Pennsylvania State University

Farmer, Thomas

Jill V. Hamm (University of North Carolina at Chapel Hill) and David Lee (Pennsylvania State University)

Grant Transferred to: Virginia Commonwealth University (R305A120812)

#### **Publications:**

Farmer, T.W., and Xie, H. (2013). Manufacturing Phenomena or Preserving Phenomena? Core Issues in the Identification of Peer Social Groups with Social Cognitive Mapping Procedures. *Social Development*, 22(3): 595-603.

Farmer, T.W., Irvin, M.J., Motoca, L.M., Leung, M.C., Hutchins, B.C., Brooks, D.S., and Hall, C.M. (2013). Externalizing and Internalizing Behavior Problems, Peer Affiliations, and Bullying Involvement Across the Transition to Middle School. *Journal of Emotional and Behavioral Disorders*. Published online before print June 25, 2013, doi: 10.1177/1063426613491286.

Farmer, T.W., Hamm, J.V., Lane, K.L., Lee, D., Sutherland, K.S., Hall, C.M., and Murray, R.A. (2013). Conceptual foundations and components of a contextual intervention to promote student engagement during early adolescence: The Supporting Early Adolescent Learning and Social Success (SEALS) Model. *Journal of Educational and Psychological Consultation*, 23(2), 115-139.

<u>Using Longitudinal and Momentary Analysis to Study the Impact of Middle School Teachers' Stress on Teacher Effectiveness, Student Behavior and Achievement</u>

University of Houston

McIntyre, Teresa

Scott McIntyre (University of Houston-Clear Lake), Paras Mehta, David Francis, Angelia Durand and Pat Taylor (Texas Institute for Measurement, Evaluation, and Statistics and Department of Psychology, University of Houston)

**Publications:** 

#### R305A110104

The Role of Behavioral and Instructional Match in the Prediction of Early Classroom

Engagement and Academic Achievement

University of North Carolina, Chapel Hill Garrett-Peters, Patricia Lynne Vernon-Feagans

**Publications:** 

#### R305A110143

A Toolkit for Identifying and Assessing Socially Rejected Children Rush University Medical Hospital McKown, Clark

**Publications:** 

#### R305A110252

Assessing the Efficacy of Check and Connect for Improving Outcomes for At-Risk High School Students

American Institutes for Research

Heppen, Jessica

Jason Snipes (IMPAQ International), Mindee O'Cummings (American Institutes for Research)

Publications:

#### R305A110470

A Randomized Controlled Trial of Student Success Skills: A Program to Improve Academic Achievement for All Students

Florida Atlantic University Webb, Linda

Greg Brigman, Elizabeth Villares, and John Carey (University of Massachusetts, Amherst)

Grant Transferred to: Florida State University, Award Number R305A120810

**Publications:** 

#### R305A110583

**Interactive Social Tutoring System for Social Skills Training with Elementary Students** 

Center for Research in Emotional and Social Health, Inc.

DeRosier, Melissa

James Thomas (North Carolina State University)

Publications:

#### R305A110703

Efficacy of the WINGS After-School Social and Emotional Learning (SEL) Program

Rectors and Visitors of the University of Virginia

Grissmer, David

Andrew Mashbum (Portland State University)

**Publications:** 

# 2012

#### R305A120128

**Brief Intervention for School Clinicians** 

University of Washington

McCauley, Elizabeth

Eric Bruns, Lucy Berliner, Shannon Dorsey, Doug Cheney, and Ann Vander Stoep

Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (CARE): A Cluster Randomized Controlled Efficacy Trial

Pennsylvania State University Jennings, Patricia Mark Greenberg

Related IES Projects: <u>Improving Classroom Learning Environments by Cultivating Awareness</u> and Resilience in Education (CARE) (R305A090179)

**Publications:** 

#### R305A120181

**Academic and Behavioral Consequences of Visible Security Measures in Schools** 

Vanderbilt University Tanner-Smith, Emily Mark Lipsey

**Publications:** 

#### R305A120659

A Neuroscience-Based Health Curriculum to Promote Academic Success

Duke University Babinski, Leslie Wilkie Wilson

**Publications:** 

## 2013

#### R305A130011

Efficacy of an Organizational Skills Intervention for Middle School Students with ADHD

Virginia Commonwealth University Langberg, Joshua

Related IES Projects: <u>Organizational Skills Interventions for Children with ADHD</u> (R305A090305)

<u>Identifying Predictors of Program Implementation to Inform a Tailored Teacher Coaching Process</u>

Johns Hopkins University

Bradshaw, Catherine

Celene Domitrovich (Pennsylvania State University)

Related IES Projects: <u>A Randomized Controlled Trial of the Combination of Two Preventive</u> Interventions (R305A080326)

**Publications:** 

#### R305A130090

A Longitudinal Study of Latino Students' Grade 3 Academic Achievement: The Role of Early Childhood Family and School Characteristics

New York University School of Medicine Calzada, Esther

**Publications:** 

#### R305A130107

<u>Professional Development to Support New Teachers' Use of Effective Classroom Management Techniques</u>

Rectors and Visitors of the University of Virginia Tolan, Patrick

**Publications:** 

#### R305A130143

**Evaluation of a Classroom Management Training Program for Middle School Teachers** University of Missouri

Herman, Keith

Wendy Reinke

Partner for Prevention (P4P): A Whole School Approach to Peer Aggression and Bullying Children's Hospital of Philadelphia Leff, Stephen

**Publications:** 

#### R305A130375

The Classroom Check-up: Supporting Elementary Teachers in Classroom Management
Using a Web-based Coaching System
University of Missouri

Reinke, Wendy

**Publications:** 

# SOCIAL AND CHARACTER DEVELOPMENT

# 2003 R305L030002

Second Step
University of Maryland, College Park
Gottfredson, Gary

**Publications:** 

#### R305L030003

Reading, Writing, Respect and Resolution: The Impact of a Social and Character Development and Literacy Program on Teachers and Children

New York University Aber, J. Lawrence

#### **Publications:**

Brown, J.L., Jones, S.M., LaRusso, M.D., and Aber, J.L. (2010). <u>Improving Classroom Quality: Teacher Influences and Experimental Impacts of the 4Rs Program</u>. *Journal of Educational Psychology, 102*(1): 153–167.

Gershoff, E.T., and Aber, J.L. (2006). Neighborhoods and Schools: Contexts and Consequences for the Mental Health and Risk Behaviors of Children and Youth. In L. Balter and C. Tamis-Lemonda (Eds.), *Child Psychology: A Handbook of Contemporary Issues (2nd Edition)* (pp. 611–645). New York, NY: Psychology Press/Taylor and Francis.

Jones, S.M., Brown, J.L., and Aber, J.L. (2009). <u>Two-Year Impacts of a Universal School-Based Social-Emotional and Literacy Intervention: An Experiment in Translational Developmental Research.</u> *Child Development (Special Issue on Raising Healthy Children: Translating Child Development Research into Practice)*, 81(5): 1632–1636.

Jones, S.M., Brown, J.L., and Aber J.L. (2008). Classroom Settings as Targets of Intervention and Research. In M. Shinn and H. Yoshikawa (Eds.), *Towards Positive Youth Development: Transforming Schools and Community Programs*. New York, NY: Oxford University Press.

Jones, S.M., Brown, J.L., Hoglund, W.G., and Aber, J. (2010). A School-Randomized Clinical Trial Of An Integrated Social–Emotional Learning and Literacy Intervention: Impacts After 1 School Year. *Journal Of Consulting and Clinical Psychology*, 78(6): 829-842.

Larusso, M.D., Brown, J.L., Jones, S.M., and Aber, J.L. (2009). School Context and Micro-Contexts: The Complexity of Studying School Settings. In L.M. Dinella (Ed.), *Conducting Psychology Research in School-Based Settings: A Practical Guide for Researchers Conducting High Quality Science Within School Environments*. Washington, D.C.: APA Books.

#### R305L030065

**Academic and Behavioral Competencies Model** 

State University of New York, Buffalo Pelham, William Greta Massetti

**Publications:** 

#### R305L030072

## Positive Action for Social and Character Development

Oregon State University

Flay, Brian

David DuBois (University of Illinois at Chicago), and Carol Allred (Positive Action, Inc.)

Related IES Projects: <u>The Chicago Social and Character Development Trial: Extension to Grade</u> 8 (R305A080253)

#### **Publications:**

Flay, B.R., and Allred, C.G. (2010). The Positive Action Program: Improving Academics, Behavior, and Character By Teaching Comprehensive Skills For Successful Learning and Living. (pp 471-501) In Lovat, T. and Toomey, R. (Eds), *International Research Handbook On Values Education and Student Wellbeing*, Dirtrecht: Springer.

Flay, B.R., Berkowitz, M., Bier, M.C., and the Social and Character Development Research Consortium (2009). <u>Elementary School-Based Programs Theorized to Support Social Development, Prevent Violence, and Promote Positive School Climate: Description and Hypothesized Mechanisms of Change</u>. *Journal of Research on Character Education*, 7(2): 21-49.

Ji, P., Dubois, D.L., Flay, B.R., and Brechling, V. (2008). <u>Congratulations, You Have Been Randomized into the Control Group!(?)</u>: <u>Issues to Consider When Recruiting Schools for Matched-Pair Randomized Control Trials of Prevention Programs</u>. *Journal of School Health*, 78(3): 131–139.

Ji, P., Flay, B., Dubois, D.L., Patton, V., Day, J., and Cantillon, D. (2006). <u>Consent Form Return Rates for Third Grade Urban Elementary Students</u>. *American Journal of Health Behavior*, *30*(5): 467–474.

Lewis, K.M., Schure, M.B., Bavarian, N., DuBois, D.L., Day, J., Ji, P., and ... Flay, B.R. (2013). Problem Behavior and Urban, Low-Income Youth: A Randomized Controlled Trial Of Positive Action In Chicago. *American Journal Of Preventive Medicine*, 44(6): 622-630.

Snyder, F., Flay, B., Vuchinich, S., Acock, A.C., Washburn, I., et al. (2010). <u>Impact of a Social-Emotional and Character Development Program on School-Level Indicators of Academic Achievement, Absenteeism, and Disciplinary Outcomes: A Matched-Pair, Cluster-Randomized, Controlled Trial. *Journal of Research on Educational Effectiveness*, 3(1): 26-55.</u>

Washburn, I.J., Acock, A., Vuchinich, S., Snyder, F., Li, K., Ji, P., and ... Flay, B.R. (2011). Effects Of A Social-Emotional and Character Development Program On The Trajectory Of Behaviors Associated With Social-Emotional and Character Development: Findings From Three Randomized Trials. *Prevention Science*, 12(3): 314-323.

#### R305L030162

Social and Character Development in Rural Youth: The Competence Support Program
University of North Carolina, Chapel Hill
Farmer, Thomas
Mark Fraser

#### **Publications:**

Farmer, T.W., and Xie, H. (2007). Aggression and School Social Dynamics: The Good, The Bad, and The Ordinary. *Journal Of School Psychology*, 45(5): 461-478.

Farmer, T.W., Farmer, E.Z., and Brooks, D. (2010). Recasting The Ecological and Developmental Roots Of Intervention For Students With Emotional and Behavior Problems: The Promise Of Strength-Based Perspectives. *Exceptionality*, 18(2): 53-57.

Farmer, T.W., Irvin, M.J., Sgammato, A.N., Dadisman, K., and Thompson, J.H. (2009). Interpersonal Competence Configurations In Rural Appalachian Fifth Graders: Academic Achievement and Associated Adjustment Factors. *The Elementary School Journal*, 109(3): 301-321

Farmer, T.W., Petrin, R A., Robertson, D.L., Fraser, M.W., Hall, C.M., Day, S.H., and Dadisman, K. (2010). Peer Relations of Bullies, Bully-Victims, and Victims: The Two Social Worlds of Bullying in Second Grade Classrooms. The Elementary School Journal, 110(3): 364-392.

Farmer, T.W., Xie, H., Cairns, B.D., and Hutchins, B.C. (2007). Social Synchrony, Peer Networks, and Aggression In School. In P.H. Hawley, T.D. Little, P.C. Rodkin (Eds.), *Aggression and Adaptation: The Bright Side To Bad Behavior* (pp. 209-233). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.

Fraser, M.W., Richman, J.M., Galinsky, M.J., and Day, S.H. (2009). *Intervention Research: Developing Social Programs*. New York, NY: Oxford University Press.

Guo, S., and Fraser, M.W. (2010). *Propensity Score Analysis: Statistical Methods and Applications*. Thousand Oaks, CA: Sage Press.

Robertson, D.L., Farmer, T.W., Fraser, M.W., Day, S.H., Duncan, T., Crowther, A., and Dadisman, K.A. (2010). <u>Interpersonal Competence Configurations and Peer Relations in Early Elementary Classrooms:</u>

<u>Perceived Popular and Unpopular Aggressive Subtypes</u>. *International Journal of Behavioral Development,* 34(1): 73–87.

Wike, T.L., and Fraser, M.W. (2009). School Shootings: Making Sense of the Senseless. *Aggression and Violent Behavior*, 14(3): 162–169.

## R305L030165

# **Promoting Alternative Thinking Strategies**

Children's Institute Johnson, Deborah Hugh Crean

# **Publications:**

Crean, H.F., and Johnson, D. B. (2013). Promoting Alternative Thinking Strategies (PATHS) and Elementary School Aged Children's Aggression: Results from a Cluster Randomized Trial. *American Journal of Community Psychology (52)*: 56-72..

## R305L030173

Love in a Big World Vanderbilt University Bickman, Leonard Katie Smith

# STATISTICAL AND RESEARCH METHODOLOGY IN EDUCATION

# 2009

#### R305D090006

**Practical Solutions for Missing Data and Imputation** 

Columbia University Gelman, Andrew Jennifer Hill (New York University)

#### **Publications:**

Gelman, A. (2011). Induction and Deduction in Bayesian Data Analysis. *Rationality, Markets and Morals (RMM)*, 2, 67-78.

Gelman, A. (2010). Bayesian Statistics Then and Now. Statistical Science, 25(2), 162.

Gelman, A., and Shalizi, C. (2013). Philosophy and The Practice Of Bayesian Statistics. *British Journal Of Mathematical and Statistical Psychology*, 66(1): 8-38.

Gelman, A., and Unwin, A. (2013). Tradeoffs in Information Graphics. *Journal of Computational and Graphical Statistics*, 22(1), 45-49.

Gelman, A., and Unwin, A. (2013). Infovis and Statistical Graphics: Different Goals, Different Looks. *Journal of Computational and Graphical Statistics*, 22(1), 2-28.

Lock, K., and Gelman, A. (2010). Bayesian Combination of State Polls and Election Forecasts. *Political Analysis*, 18(3), 337-348.

#### R305D090008

<u>Statistical Properties of Regression Discontinuity Analysis and Comparative Interrupted</u> Time Series Analysis for Estimating Impacts

**MDRC** 

Bloom, Howard

#### Publications:

Jacob, R. T., Zhu, P., Somers, M. A., and Bloom, H. S. (2012). *A Practical Guide to Regression Discontinuity*. MDRC.

#### R305D090009

<u>Using Instrumental Variables Analysis Coupled with Rigorous Multi-Site Impact Studies</u>
<u>to Study the Causal Paths by which Educational Interventions Affect Student Outcomes</u>
MDRC

Bloom, Howard

Bloom, H.S. (2012). Modern Regression Discontinuity Analysis. *Journal of Research on Educational Effectiveness* 5(1): 43-82.

Bloom, H. S. (2012). Comments: Statistical Analysis for Multisite Trials. *Journal of Research on Educational Effectiveness*, 5(3), 333-335.

Raudenbush, S. W., Reardon, S. F., and Nomi, T. (2012). Statistical Analysis for Multisite Trials Using Instrumental Variables With Random Coefficients. *Journal of Research on Educational Effectiveness*, *5*(3), 303-332.

#### R305D090011

Reducing Bias and Improving Efficiency of Estimated Teacher Effects from Value-Added Models

RAND Corporation Lockwood, J.R. Daniel McCaffrey

#### **Publications:**

Han, B. (2013). Conditional Akaike Information Criterion In The Fay-Herriot Model. *Statistical Methodology*, 11: 53-67.

McCaffrey, D.F., and Lockwood, J.R. (2011). Missing Data In Value-Added Modeling Of Teacher Effects. *Annals of Applied Statistics*, 5 (2A): 773-797.

#### R305D090013

**Examining the Changes in Methodology that Occur Between the Design and Implementation of Field Trials in Education** 

Western Michigan University Spybrook, Jessica

#### Publications:

Spybrook, J., Puente, A. C., and Lininger, M. (2011). An Examination of the Impact of Changes in Federal Policies on the Landscape of Educational Research in the USA. *Effective Education*, *3*(2), 83-88.

#### R305D090016

Estimation and Inference in Education Research when Actions by Participants Impact Validity and Availability of Data

RAND Corporation Engberg, John

Related IES Projects: <u>Determinants of Student Outcomes in an Urban School District</u>: Educational Interventions and Family Choices (R305A070117)

Davis, B., Engberg, J., Epple, D.N., Sieg, H., Zimmer, R. (2010). <u>Evaluating The Gifted Program Of An Urban School District Using A Modified Regression Discontinuity Design</u>. National Bureau of Economic Research, Working Paper 16414

Engberg, J., Epple, D., Imbrogno, J., Sieg, H., and Zimmer, R. (in press). Bounding the Treatment Effects of Education Programs That Have Lotteried Admission and Selective Attrition. *Journal of Labor Economics*.

#### R305D090019

<u>Hierarchical Linear Modeling Under Multilevel Non-Ignorable Non-Responses with Applications to NAEP Data</u>

University of California, Riverside Li, Jun

**Publications:** 

#### R305D090020

<u>Using Imperfect Fidelity Measures to Improve Statistical Inferences about Educational Interventions</u>

Southern Methodist University Stokes, S. Lynne Jill Allor, Ian Harris

**Publications:** 

#### R305D090021

<u>Developing Time-Indexed Effect Size Metrics for K-12 Reading and Math Educational</u> Evaluation

State University of New York, Buffalo Lee, Jaekyung Jeremy Finn

Project Website: <a href="http://gse.buffalo.edu/faculty/centers/ties">http://gse.buffalo.edu/faculty/centers/ties</a>

<u>Development of Accessible Methodologies and Software in Hierarchical Models with Missing Data</u>

**NORC** 

Raudenbush, Stephen

Yongyin Shin

Related IES Projects: <u>Accessible Methodology and User-Friendly Software for Multivariate</u> Hierarchical Models Given Incomplete Data (R305D130033)

#### **Publications:**

Shin, Y. (2012). Do Black Children Benefit More from Small Classes? Multivariate Instrumental Variable Estimators with Ignorable Missing Data. *Journal of Educational Behavioral Statistics*, *37*: 543-574.

Shin, Y. (2013). Efficient Handling of Predictors and Outcomes Having Missing Values. In Rutkowski, L., von Davier, M., and Rutkowski, D. (Eds.), *A Handbook of International Large-Scale Assessment Data Analysis*, Chapman and Hall.

Shin, Y. and Raudenbush, S.W. (2011). <u>The Causal Effect of Class Size on Academic Performance:</u> <u>Multivariate Instrumental Variable Estimators With Tennessee Class Size Data Missing at Random.</u> *Journal of Educational and Behavioral Statistics, 36*(2): 154-185.

Shin, Y. and Raudenbush, S.W. (2010). <u>A Latent Cluster-Mean Approach to the Contextual Effects Model</u> With Missing Data. *Journal of Educational and Behavioral Statistics*, *35*(1): 26–53.

#### R305D090024

<u>Cross-Classified Structural Equations Model: Development of an OpenMX Module and its Application to Multiyear Assessment and Intervention Data in Literacy Research</u>
University of Houston

Mehta, Paras

Related IES Projects: <u>Language and Literacy Abilities in Spanish Language Speaking Children</u> (R305A100272) and <u>The Roles of Instruction and Component Skills in Reading Achievement</u> (R305A120785)

#### **Publications:**

Branum-Martin, L. (2013). Multilevel Modeling: Practical Examples to Illustrate a Special Case of SEM. *Applied Quantitative Analysis in Education and the Social Sciences*. Rutledge.

Mehta, P.D. (2013). nLevel Structural Equation Modeling. *Applied Quantitative Analysis in Education and the Social Sciences*. Rutledge.

# 2010

# R305D100017

#### Practical Tools for Multilevel Hierarchical Modeling in Education Research

Columbia University

Gelman, Andrew

Jingchen Liu (Columbia University) and Sophia Rabe-Hesketh (UC-Berkeley)

#### **Publications:**

Adler, R.J., Blanchet, J.H., and Liu, J. (2012). Efficient Monte Carlo for High Excursions of Gaussian Random Fields. The Annals of Applied Probability, 22(3), 1167-1214.

Chung, Y., Rabe-Hesketh, S., and Choi, I. H. (2013). Avoiding Zero Between-Study Variance Estimates in Random-Effects Meta-Analysis. Statistics in Medicine. Article first published online: 13 MAY 2013. DOI: 10.1002/sim.5821.

Chung, Y., Rabe-Hesketh, S., Dorie, V., Gelman, A., and Liu, J. (2013). A Nondegenerate Penalized Likelihood Estimator for Variance Parameters in Multilevel Models. *Psychometrika*, 1-25.

Liu, J. (2012). Tail Approximations of Integrals of Gaussian Random Fields. The Annals of Probability, 40(3), 1069-1104.

Liu, J., and Xu, G. (2012). Some Asymptotic Results of Gaussian Random Fields with Varying Mean Functions and the Associated Processes. *The Annals of Statistics*, 40(1), 262-293.

Liu, J., and Xu, G. (2012, December). Rare-Event Simulations for Exponential Integrals of Smooth Gaussian Processes. In Proceedings of the Winter Simulation Conference (p. 36). Winter Simulation Conference.

Liu, J., and Xu, G. (2013). On the Density Functions of Integrals of Gaussian Random Fields. Advances in Applied Probability, 45(2), 398-424.

Liu, J., Xu, G., and Ying, Z. (2012). Data-Driven Learning Of Q-Matrix. Applied Psychological Measurement, 36(7): 548-564.

#### R305D100018

Value-Added Models and Accountability: Next Steps

University of Wisconsin, Madison

Meyer Robert

**Generalized Dimensionality Assessment for Multidimensional Psychometric Models** 

Arizona State University Levy, Roy

#### **Publications:**

Svetina, D., and Levy, R. (2012). An Overview Of Software For Conducting Dimensionality Assessment In Multidimensional Models. *Applied Psychological Measurement*, *36*(8): 659-669.

#### R305D100027

Regression Discontinuity Designs with Assignment Based on Multiple Rating Scores: Statistical Properties and Issues in the Context of Education Evaluation

**MDRC** 

Bloom, Howard

Sean Reardon (Stanford University)

#### **Publications:**

Reardon, S. F., and Robinson, J. P. (2012). Regression Discontinuity Designs with Multiple Rating-Score Variables. *Journal of Research on Educational Effectiveness*, *5*(1), 83-104.

#### R305D100028

<u>Constructing Value-Added Indicators of Teacher and School Effectiveness that We Can</u> Trust

Michigan State University

Guarino, Cassandra

Mark Reckase (Michigan State University) and Jeffrey Wooldridge (Michigan State University)

**Publications:** 

#### R305D100033

Better Warranted Quasi-Experimental Practice for Evidence Based Practical Research
Northwestern University
Cook, Thomas

#### **Publications:**

Cook, T.D., Wong, M. and Steiner, P.M. (2012). Evaluating National Programs: A Case Study Of The No Child Left Behind Program In The United States. In Bliesener, T., Beelmann, A., and Stemmler, M. (Eds.), *Antisocial Behavior and Crime: Contributions Of Developmental and Evaluation Research To Prevention and Intervention*. Cambridge, MA: Hogrefe Publishing.

Diamond, S.S., Bowman, L.E., Wong, M. and Patton, M.M. (2010) Efficiency and Cost: The Impact Of Videoconferenced Hearings On Bail Decisions. *The Journal Of Criminal Law and Criminology*, 100(3).

Hallberg, K., Wing, C., Wong, V.C., and Cook, T.D. (2013). Experimental Design For Causal Inference: Clinical Trial and Regression-Discontinuity Designs. In T. Little (Ed.), *The Oxford Handbook Of Quantitative Methods*. Oxford, UK: Oxford University Press.

Hong, G., and Nomi, T. (2012). Weighting Methods For Assessing Policy Effects Mediated By Peer Change. *Journal Of Research On Educational Effectiveness*, 5: 261-289.

Marcus, S.M., Stuart, E.A., Wang, P., Shadish, W.R., and Steiner, P.M. (2012). <u>Estimating The Causal Effect Of Randomization Versus Treatment Preference In A Doubly Randomized Preference Trial</u>. *Psychological Methods*, *17*(2): 244-245.

Shadish, W., and Sullivan, K. (2012). Theories Of Causation In Psychological Science. In H. Cooper (Ed.-In-Chief), P. Camic, D. Long, A. Panter, D. Rindskopf, and K.J. Sher (Assoc. Eds.), *APA Handbooks In Psychology: Vol. 1. APA Handbook Of Research Methods In Psychology: Psychological Research: Foundations, Planning, Methods, and Psychometrics*. Washington, DC: American Psychological Association.

Shadish, W.R. (2011). <u>Randomized Controlled Studies and Alternative Designs In Outcome Studies</u>. *Research On Social Work Practice*, *21*(6): 636-643.

Shadish, W.R. (2011). Randomized Controlled Studies and Alternative Designs In Outcome Studies: Challenges and Opportunities. *Research On Social Work Practice*, *21*(6): 636-643.

Shadish, W.R., and Sullivan, K.J. (2011). Characteristics Of Single-Case Designs Used To Assess Intervention Effects In 2008. *Behavior Research Methods*, 43(4): 971-980.

Steiner, P.M. (2012). Comments: Using Design Elements For Increasing The Severity Of Causal Mediation Tests. *Journal Of Research On Educational Effectiveness*, *5*: 296-298.

Steiner, P.M. and Cook, D.L. (2013). Matching and Propensity Scores. In Little, T.D. (Ed.), *The Oxford Handbook Of Quantitative Methods*. Oxford, UK: Oxford University Press.

Steiner, P.M., and Cook, D. (2013). Matching and Propensity Scores. In T.D. Little (Ed.), *The Oxford Handbook Of Quantitative Methods (Vol 1): Foundations* (pp. 237-259). New York, NY US: Oxford University Press.

Wong, V.C., Steiner, P.M., and Cook, T.D. (2012). <u>Analyzing Regression-Discontinuity Designs With Multiple Assignment Variables: A Comparative Study Of Four Estimation Methods.</u> *Journal Of Educational and Behavioral Statistics*, *38*(2): 107-141.

Wong, V.C., Wing, C., Steiner, P.M., Wong, M., and Cook, T.D. (2013). Research Designs For Program Evaluation. In J.A. Schinka, W.F. Velicer, I.B. Weiner (Eds.), *Handbook Of Psychology, Vol. 2: Research Methods In Psychology (2nd Ed.)* (pp.316-341). Hoboken, NJ US: John Wiley and Sons Inc.

Wong, V.C., Wing, C., Steiner, P.M., Wong, M., and Cook, T.D. (2012). *Research Methods In Psychology*. (2<sup>nd</sup> Ed. ). Hoboken, NJ: Wiley and Sons.

Non-Linear Multilevel Latent Variable Modeling with a Metropolis-Hastings Robbins-Monro Algorithm

University of California, Los Angeles Cai, Li Michael Seltzer (UCLA)

#### **Publications:**

Cai, L. (2010). A Two-Tier Full-Information Item Factor Analysis Model With Applications. *Psychometrika*, 75(4): 581-612.

Cai, L. (2013). Factor Analysis Of Tests and Items. In K. F. Geisinger, B. A. Bracken, J. F. Carlson, J. C. Hansen, N. R. Kuncel, S. P. Reise, M. C. Rodriguez (Eds.), *APA Handbook Of Testing and Assessment In Psychology, Vol. 1: Test Theory and Testing and Assessment In Industrial and Organizational Psychology* (pp.85-100). Washington, DC US: American Psychological Association.

Cai, L., and Hansen, M. (2013). Limited-Information Goodness-Of-Fit Testing Of Hierarchical Item Factor Models. *British Journal Of Mathematical and Statistical Psychology*, 66(2): 245-276.

Cai, L., Yang, J., and Hansen, M. (2011). Generalized Full-Information Item Bifactor Analysis. *Psychological Methods*, *16*(3): 221-248.

Cole, D. A., Cai, L., Martin, N. C., Findling, R. L., Youngstrom, E. A., Garber, J., and ... Forehand, R. (2011). Structure and Measurement Of Depression In Youths: Applying Item Response Theory To Clinical Data. *Psychological Assessment*, *23*(4): 819-833.

Gibbons, R., and Cai, L. (In Press). Dimensionality Assessment. In W. J. Van Der Linden and R. K. Hambleton (Eds.), *Handbook Of Modern Item Response Theory* (2nd Ed.). New York, NY: Chapman and Hall.

Lee, T., and Cai, L. (2012). Alternative Multiple Imputation Inference For Mean and Covariance Structure Modeling. *Journal Of Educational and Behavioral Statistics*, *37*(6): 675-702.

Preston, K., Reise, S., Cai, L., and Hays, R.D. (2011). Using The Nominal Response Model To Evaluate Response Category Discrimination In The PROMIS Emotional Distress Item Pools. *Educational and Psychological Measurement*, 71(3): 523-550.

Thissen, D., and Cai, L. (In Press). Nominal Categories Models. In W. J. Van Der Linden and R. K. Hambleton (Eds.), *Handbook Of Modern Item Response Theory* (2nd Ed.). New York, NY: Chapman and Hall.

Tian, W., Cai, L., Thissen, D., and Xin, T. (2013). Numerical Differentiation Methods For Computing Error Covariance Matrices In Item Response Theory Modeling: An Evaluation and A New Proposal. *Educational and Psychological Measurement*, 73(3): 412-439.

Woods, C. M., Cai, L., and Wang, M. (2013). The Langer-Improved Wald Test For DIF Testing With Multiple Groups: Evaluation and Comparison To Two-Group IRT. *Educational and Psychological Measurement*, 73(3): 532-547.

Yang, J., Hansen, M., and Cai, L. (2012). Characterizing Sources Of Uncertainty In Item Response Theory Scale Scores. *Educational and Psychological Measurement*, 72(2): 264-290.

# <u>Testing Different Methods of Improving the External Validity of Impact Evaluations in Education</u>

Abt Associates, Inc.

Olsen, Robert

Stephen Bell

#### **Publications:**

Olsen, R.B., Orr, L.L., Bell, S.H., and Stuart, E.A. (2013). External Validity In Policy Evaluations That Choose Sites Purposively. *Journal Of Policy Analysis and Management*, 32(1): 107-121.

#### R305D100046

# A d-Estimator for Single Case Designs

University of California, Merced Shadish, William David Rindskopf (City University of New York)

#### **Publications:**

Hedges, L.V., Pustejovsky, J.E., and Shadish, W.R. (2012). A Standardized Mean Difference Effect Size For Single Case Designs. *Research Synthesis Methods*, 3(3): 224-239.

Shadish, W.R. (2011). Randomized Controlled Studies and Alternative Designs In Outcome Studies: Challenges and Opportunities. *Research On Social Work Practice*, *21*(6): 636-643.

Shadish, W.R., and Sullivan, K.J. (2011). Characteristics Of Single-Case Designs Used To Assess Intervention Effects In 2008. *Behavior Research Methods*, 43(4): 971-980.

# 2011

#### R305D110001

#### **Bayesian Inference for Experimental and Observational Studies in Education**

University of Wisconsin, Madison

Kaplan, David

#### **Publications:**

Kaplan, D., and Chen, J. (2012). A Two-Step Bayesian Approach for Propensity Score Analysis: Simulations and Case Study. *Psychometrika*, 77: 581-609.

Kaplan, D., and Depaoli, S. (2012). Bayesian Structural Equation Modeling. In R. Hoyle (ed.), *Handbook of Structural Equation Modeling*. (pp 650-673), New York: Guilford Publications, Inc.

Kaplan, D., and Depaoli, S. (2013). Bayesian Statistical Methods. In T.D. Little (Ed.), *The Oxford Handbook of Quantitative Methods (Vol 1): Foundations* (pp. 407-437). New York, NY US: Oxford University Press.

Kaplan, D., and Park, S. (in press). Analyzing International Large-Scale Assessment Data Within a Bayesian Framework. In Rutkowski, L., von Davier, M., and Rutkowski, D. (eds.) *A Handbook Of* 

International Large-Scale Assessment: Background, Technical Issues, and Methods Of Data Analysis. London: Chapman Hall/CRC Press.

#### R305D110008

Methods for Parameter Inference, Model Comparison and Incomplete Data in Complex Psychometric Models for NAEP Survey Data

American Institutes for Research

Salganik, Laura

Murray Aitkin and Irit Aitkin (University of Melbourne, Australia)

**Publications:** 

#### R305D110014

<u>Increased Accuracy in the Detection of Differential Item Functioning through Multilevel Analysis</u>

Washington State University French, Brian W Holms Finch

#### **Publications:**

French, B.F., and Finch, W. (2013). Extensions Of Mantel–Haenszel For Multilevel DIF Detection. *Educational and Psychological Measurement*, 73(4): 648-671.

#### R305D110018

Addressing Practical Problems in Achievement Gap Estimation: Nonparametric Methods for Censored Data

Stanford University

Reardon, Sean

Andrew Ho (Harvard University)

Related IES Projects: <u>The Effects of Racial School Segregation on the Black-White</u> Achievement Gap (R205A070377)

#### **Publications:**

Ho, A.D., and Reardon, S.F. (in press). Estimating Achievement Gaps From Test Scores Reported In Ordinal "Proficiency" Categories. *Journal Of Educational and Behavioral Statistics*.

Multilevel Synthesis of Single-Case Experimental Data: Further Developments and Empirical Validation

Katholieke Universiteit Leuven

Noortgate, Wim Van den

Tasha Beretvas (University of Texas-Austin) and John Ferron (University of South Florida)

#### **Publications:**

Moeyaert, M., Ugille, M., Ferron, J., Beretvas, S., and Van Den Noortgate, W. (in press). Three-Level Analysis Of Single-Case Experimental Data: Empirical Validation. *Journal Of Experimental Education*.

Moeyaert, M., Ugille, M., Ferron, J., Beretvas, S., and Van Den Noortgate, W. (2013). Modeling External Events In The Three-Level Analysis Of Multiple Baseline Across-Participants Designs: A Simulation Study. *Behavior Research Methods*, 45(2): 547-559.

Rindskopf, D., and Ferron, J. (In Press). Using Multilevel Models To Analyze Single-Case Design Data. In T. R. Kratochwill and J.R. Levin (Eds.) *Single-Case Intervention Research: Methodological and Data-Analysis Advances*. American Psychological Association.

Ugille, M., Moeyaert, M., Beretvas, N., Ferron, J., and Van Den Noorgate, W. (2012). Multilevel Meta-Analysis Of Single-Subject Experimental Designs: A Simulation Study. *Behavior Research Methods*, 44: 1244-1254.

Ugille, M., Moeyaert, M., Beretvas, N., Ferron, J., and Van Den Noorgate, W. (in press). Bias Corrections For Standardized Effect Size Estimates Used With Single-Subject Experimental Designs. *Journal Of Experimental Education*.

#### R305D110027

**Psychometric Models for 21st Century Educational Survey Assessments** 

Educational Testing Service Riimen, Frank

Matthias Von Davier

#### **Publications:**

Jeon, M., Rijmen, F., and Rabe-Hesketh, S. (2013). Modeling Differential Item Functioning Using A Generalization Of The Multiple-Group Bifactor Model. *Journal Of Educational and Behavioral Statistics*, 38(1): 32-60.

Rijmen, F. (2011). The Latent Class Model As A Measurement Model For Situational Judgment Tests. *Psychologica Belgica*, *51*(3-4): 197-212.

Rijmen, F., and Jeon, M. (In Press). Fitting An Item Response Theory Model With Random Item Effects Across Groups By A Variational Approximation Method. *Annals Of Operations Research*.

# **State-specific Design Parameters for Designing Better Evaluation Studies**

National Opinion Research Center (NORC) Hedges, Larry Eric Hedberg

#### **Publications:**

Hedges, L.V., Hedberg, E.C., and Kuyper, A.M. (2012). The Variance Of Intraclass Correlations In Three-and Four-Level Models. *Educational and Psychological Measurement*, 72(6): 893-909.

#### R305D110037

#### Sensitivity Analysis—If We're Wrong, How Far Are We from Being Right?

New York University Hill, Jennifer Marc Scott

#### **Publications:**

Hill, J., and Su, Y.-S. (in press). Assessing Lack Of Common Support In Causal Inference Using Bayesian Nonparametrics: Implications For Evaluating The Effect Of Breastfeeding On Children's Cognitive Outcomes. *Annals Of Applied Statistics*.

#### R305D110046

# <u>Approaches for Weighting and Estimation of Public-release Education Data using Two-level Covariance Structure Models</u>

University of Maryland, Baltimore County Stapleton, Laura

Grant Transferred to: University of Maryland, College Park, Award Number R305D110050

#### **Publications:**

Stapleton, L.M. (2012). Evaluation Of Conditional Weight Approximations For Two-Level Models. *Communications in Statistics: Simulation and Computation, 4*: 182-204.

# 2012

#### R305D120004

# **Hierarchical Network Models for Education Research**

Carnegie Mellon University Junker, Brian

<u>Matching Strategies for Observational Studies with Multilevel Data in Educational Research</u>

University of Wisconsin, Madison Steiner, Peter Jee-Seon Kim

**Publications:** 

#### R305D120006

Assessing the Fit of the Statistical Model Used in the National Assessment of Educational Progress

Education Testing Service Sinharay, Sandip Matthew Johnson (Teachers College)

**Publications:** 

#### R305D120020

Weighting Methods for Mediation Analysis in Experimental and Quasi-Experimental Multilevel Data

National Opinion Research Center (NORC) Hong, Guanglei

**Publications:** 

# 2013

#### R305D130033

Accessible Methodology and User-Friendly Software for Multivariate Hierarchical Models Given Incomplete Data

Virginia Commonwealth University

Shin, Yongyun

Steve Raudenbush (University of Chicago)

Related IES Projects: <u>Development of Accessible Methodologies and Software in Hierarchical Models with Missing Data</u> (R305D090022)

# TEACHER QUALITY: MATHEMATICS AND SCIENCE EDUCATION

# 2003 R305M030154

Algebra Learning for All (ALFA)

LessonLab, Inc. Stigler, James

#### **Publications:**

Santagata, R. (2009). <u>Designing Video-Based Professional Development For Mathematics Teachers In Low-Performing Schools</u>. *Journal Of Teacher Education, Theme Issue: Innovative Uses Of Technology In Teacher Education*, 60(1): 38–51.

Santagata, R., Kersting, K., Givvin, K., and Stigler, J.W. (2011). <u>Problem Implementation As A Lever For Change: An Experimental Study Of The Effects Of A Professional Development Program On Students' Mathematics Learning</u>. *Journal For Research On Educational Effectiveness*, 4(1): 1-24.

Spencer, J.A. (2009). Identity At The Crossroads: Understanding The Practices and Forces That Shape African American Success and Struggle In Mathematics. In D. Martin (Ed.), *Mathematics Teaching, Learning, and Liberation In The Lives Of Black Children* (pp.200-230). New York, NY US: Routledge/Taylor and Francis Group.

Spencer, J., Park, J., and Santagata, R. (2010). Keeping The Mathematics On The Table In Urban, Mathematics Professional Development: A Model That Integrates Dispositions Toward Students. In M.Q. Foote (Ed.), *Mathematics Teaching and Learning In K–12: Equity and Professional Development*. (Pp 199–218). New York, NY: Palgrave/Macmillan.

# 2004

#### R305M040127

Algebra Connections: Teacher Education in Clear Instruction and Responsive Assessment of Algebra Patterns and Problem Solving

DePaul University Radner, Barbara

Project Website: http://teacher.depaul.edu/AlgebraConnections.html

#### R305M040156

The Relationship Between Mathematics Teachers' Content Knowledge and Students'

Mathematics Achievement: Exploring the Predictive Validity of the Praxis Series Middle
School Mathematics Test

Educational Testing Service Tannenbaum, Richard

#### **Publications:**

Gitomer, D.H., Brown, T.L., and Bonett, J. (2011). Useful Signal or Unnecessary Obstacle? The Role of Basic Skills Tests in Teacher Preparation. *Journal of Teacher Education*, 62(5), 431-445.

# 2005

#### R305M050005

**Utah's Improving Science Teacher Quality Initiative** 

University of Cincinnati Johnson, Carla Jamison Fargo (Utah State University)

#### **Publications:**

Johnson, C.C., and Sherry Marx (2009). <u>Transformative Professional Development: A Model for Urban Science Education Reform</u>. *Journal of Science Teacher Education*, 20(2): 113–134.

Johnson, C.C. (2010). Transformative Professional Development for In-Service Teachers: Enabling Change in Science Teaching to Better Meet the Needs of Hispanic ELL Students. In Sunal, D.W., Sunal, D.S., Mantero, M., and Wright, E. (Eds.), *Teaching Science with Hispanic ELLs in K–16 Classrooms*. (pp 233–252). Charlotte, NC: Information Age Publishing.

Johnson, C.C., and Fargo, J.D. (2010). <u>Urban School Reform Enabled by Transformative Professional</u> <u>Development: Impact on Teacher Change and Student Learning of Science</u>. *Urban Education*, *45*(1): 4–29.

Jennings-Bolshakova, V.L., Johnson, C.C., and Czerniak, C.M. (2011). "It Depends on What Science Teacher You Got": Urban Science Self-Efficacy: Teacher and Student Voices. Cultural Studies of Science Education, 6(4): 961-997.

Johnson, C.C. (2011). <u>The Road to Culturally Relevant Science: Exploring How Teachers Navigate Change in Pedagogy</u>. *Journal of Research in Science Teaching*, 48(2): 170-198.

#### R305M050023

Replication and Outcomes of the Teaching SMART® Program in Elementary Science Classrooms

University of South Florida

Borman, Kathryn

Kim Davis (District School Board of Pasco County) and Sherri Steffen (Teaching SMART and Girls Inc., Rapid City)

#### R305M050060

Assessing the Potential Impact of a Professional Development Program in Science on Head Start Teachers and Children

Education Development Center, Inc. Clark-Chiarelli, Nancy Jess Gropen

Project Website: <a href="http://ccf.edc.org/Projects/projDetail.asp?projID=3641">http://ccf.edc.org/Projects/projDetail.asp?projID=3641</a>

IES Related Project: <u>Assessing the Efficacy of a Comprehensive Intervention in Physical Science on Head Start Teachers and Children</u> (R305A090114)

**Publications:** 

#### R305M050064

Mentoring Teachers through Pedagogical Content Knowledge Development
Allegheny Singer Research Institute
Hall-Stoodley, Luanne

**Publications:** 

#### R305M050109

**Evolving Inquiry: An Experimental Test of a Science Instruction Model for Teachers in Rural, Culturally Diverse Schools** 

University of Nebraska Doll, Elizabeth Ron Bonnstetter, Roger Bruning, Christy Horn

**Publications:** 

#### R305M050226

Comparing the Efficacy of Three Approaches to Improving Teaching Quality in Science Education: Curriculum Implementation, Design, and Adaptation

SRI International Penuel, William R

Project Website: http://ctl.sri.com/projects/displayProject.jsp?Nick=tides

**Publications:** 

Penuel, W.R., and Gallagher, L.P. (2009). Preparing Teachers To Design Instruction For Deep Understanding In Middle School Earth Science. *Journal Of The Learning Sciences*, 18(4): 461-508.

#### R305M050270

<u>Investigating the Efficacy of a Professional Development Program in Classroom Assessment for Middle School Reading and Mathematics</u>

South Carolina Department of Education Schneider, Christina

**Publications:** 

#### 2006

#### R305M060057

<u>Using Video Clips of Classroom Instruction as Item Prompts to Measure Teacher Knowledge of Teaching Mathematics: Instrument Development and Validation</u>
University of Arizona
Kersting, Nicole

#### **Publications:**

Kersting, N. (2008). <u>Using Video Clips as Item Prompts to Measure Teachers' Knowledge of Teaching Mathematics</u>. *Educational and Psychological Measurement*, *68*: 845–886.

Kersting, N. B., Givvin, K., Sotelo, F., and Stigler, James (2010). <u>Teacher's Analysis of Classroom Video Predicts Student Learning of Mathematics: Further Explorations of a Novel Measure of Teacher Knowledge</u>. *Journal of Teacher Education*, 61(1–2): 172–181.

#### R305M060065

<u>Integrating Science and Diversity Education: A model of Pre-Service Elementary Teacher</u> Preparation

University of Califronia, Berkeley Tharp, Roland

#### **Publications:**

Bravo, M.A. (2011). Leveraging Spanish-Speaking Els Native Language To Access Science. National Clearinghouse For English Language Acquisition 3, 21–23.

Stoddart, T., Solís, J.L., Tolbert, S., and Bravo, M.A. (2010). A Framework For The Effective Science Teaching Of English Language Learners In Elementary Schools. In D. W. Sunal, C. S. Sunal and E. L. Wright (Eds.), Teaching Science With Hispanic Ells In K–16 Classrooms (Vol. Research In Science Education, pp.151–182). Charlotte, NC.: Information Age Publishing.

Solís, J.L., Bravo, M.A. and Stoddart, T. (2009). Integrating Science and Diversity Education: A Model For Pre-Service Elementary Teacher Preparation Programs. Proceedings From The National Association Of Research In Science Teaching Annual Meeting. Garden Grove CA.

Bravo, M.A. and Cervetti, G.N. (2009). Teaching Vocabulary Through Text and Experience. In A. E., Farstrup and S. Samuels (Eds.), What Research Has To Say About Vocabulary Instruction (pp.130–149). Newark, DE: International Reading Association Inc.

## 2007

## R305A070063

The Efficacy of the Responsive Classroom Approach for Improving Teacher Quality and Children's Academic Performance

University of Virginia Rimm-Kaufman, Sara

#### **Publications:**

Hulleman, C.S., Rimm Kaufman, S.E., and Abry, T. (In Press). Whole Part Whole: Construct Validity, Measurement, and Analytical Issues For Intervention Fidelity Assessment In Education Research.

Merritt, E., Rimm Kaufman, S.E., Berry, R.Q., Walkowiak, T., and Ottmar, E.M. (2010). A Reflection Framework For Teaching Mathematics. *Teaching Children Mathematics*, *17*(4): 238 248.

Ottmar, E.R., and Walkowiak, T.A. (2011). Social Emotional Learning In The Mathematics Classroom. Social and Emotional Learning Newsletter From The American Educational Research Association, 5(1): 67.

Ottmar, E.R., Rimm-Kaufman, S.E., Berry, R.Q., and Larsen, R.A. (2013). Does The Responsive Classroom Approach Affect The Use Of Standards-Based Mathematics Teaching Practices? Results From A Randomized Controlled Trial. *The Elementary School Journal*, *113*(3): 434-457.

Ottmar, E.R., Rimm Kaufman, S.E., Berry, R.Q., and Larsen, R. (In Press). Results From A Randomized Controlled Trial: Does The Responsive Classroom Approach Impact The Use Of Standards Based Mathematics Teaching Practices. *Elementary School Journal*.

Wanless, S.B., Patton, C.L., Rimm-Kaufman, S.E., and Deutsch, N.L. (2013). Setting-Level Influences On Implementation Of The Responsive Classroom Approach. *Prevention Science*, 14(1): 40-51.

## R305A070237

<u>Improving the Mathematical Content Base of Lesson Study: Design and Test of Two Research-Based Toolkits</u>

Mills College Lewis, Catherine

## R305B070233

**Understanding Science: Improving Achievement of Middle School Students in Science** 

WestED

Schneider, Steve

Program Website: http://www.wested.org/understandingscience, http://www.wested.org/mss

## **Publications:**

Daehler, K. R., Folsom, J., and Shinohara, M. (2011). *Making Sense of SCIENCE: Energy for Teachers of Grades 6-8*. San Francisco, CA: WestEd.

Daehler, K. R., Shinohara, M., and Folsom, J. (2011). *Making Sense of SCIENCE: Force & Motion for Teachers of Grades 6-8*. WestEd.

Shinohara, M. and Daehler. K.R. (2008). Understanding Science: The Role of Community in Content Learning. In A. Lieberman and L. Miller (Eds.), *Teachers in Professional*.

## R305B070443

## Effect of the SUN Teacher Workshop on Student Achievement

Milwaukee School of Engineering

Batiza Ann

Project Website: http://www.msoe.edu/academics/research\_centers/sun/

#### **Publications:**

Batiza, A.F., Gruhl, M., Zhang, B., Harrington, T., Roberts, M., LaFlamme, D., Haasch, M.A., Knopp, J., Vogt, G., Goodsell, D., Hagedorn, E., Marcey, D., Hoelzer, M., and Nelson, D. (2013). The Effects of the SUN Project on Teacher Knowledge and Self-Efficacy Regarding Biological Energy Transfer Are Significant and Long-Lasting: Results of a Randomized Controlled Trial. *CBE—Life Sciences Education*, 12: 287–305.

## 2008

## R305A080078

## **Leadership for Integrated Middle-School Science (LIMSS)**

University of South Florida

Potter, Robert

Dana Zeidler (University of South Florida) and andi Ringer (Hillsborough County Public Schools)

**Publications:** 

## R305A080692

**Education Research - BioBridge Teacher Quality** 

University of California, San Diego

## Thompson, Loren

Program Website: http://sciencebridge.ucsd.edu/

#### **Publications:**

Rios, A.C. and French, G. (2011). Introducing Bond-Line Organic Structures in High School Biology: An Activity That Incorporates Pleasant-Smelling Molecules. *Journal of Chemistry Education*. 88: 954–959.

## 2009

## R305A090145

## **INSPIRE: Urban Teaching Fellows Program**

University of Cincinnati Johnson, Carla

#### **Publications:**

Johnson, C.C., (2011). Defining Turbulence In STEM Educational Reform, In Johnson, C.C. (Ed.) *Secondary STEM Educational Reform*, Palgrave Macmillan.

Johnson, C.C., (2011). Targeting Turbulence: Lessons Learned—Potential Solutions To Challenges, In Johnson, C.C. (Ed.) *Secondary STEM Educational Reform*, Palgrave Macmillan.

Johnson, C.C. (2011). The Road To Culturally Relevant Science: Exploring How Teachers Navigate Change In Pedagogy. *Journal Of Research In Science Teaching*, 48(2): 170-198.

Johnson, C.C., and Fargo, J.D. (2010). Urban School Reform Enabled By Transformative Professional Development: Impact On Teacher Change and Student Learning Of Science. *Urban Education*, 45(1): 4-29.

## 2010

## R305A100047

<u>Linear Functions for Teaching: An Efficacy Study of Learning and Teaching Linear Functions</u>

WestEd

Schneider, Steve

## R305A100091

**Accessible Professional Development for Teaching Aquatic Science Inquiry** 

University of Hawaii Duncan, Kanesa

#### **Publications:**

Duncan S.K., Philippoff, J., Kaupp, L., and Vallin, L. (2012) Metacognition As Means to Increase the Effectiveness of Inquiry-based Science Education. *Science Education International*, 23(4): 366-382.

## R305A100176

A Practice-Based Approach to Professional Development in Science in Urban Elementary and Middle Schools

Technical Education Research Centers, Inc.

Rosebery, Ann

**Publications:** 

## R305A100178

Making Room for Student Thinking: Using Automated Feedback, Video-Based Professional Development, and Evidence-Based Practice Recommendations to Improve Mathematical Discussion

University of Michigan Miller, Kevin

**Publications** 

## R305A100445

<u>Using Data to Inform Decisions: How Teachers Use Data to Inform Practice and Improve Student Performance in Mathematics</u>

CAN Corporation Cavalluzzo, Linda

## R305A100454

**Making Middle School Mathematics Accessible for All Students** 

WestED Hauk, Shandy

Project Website: http://mas.wested.org

**Publications** 

## R305A100623

**Developing Mathematics Teaching through Focused Collaborative Assessment of Practice** 

University of Michigan

Moss Pamela

#### **Publications:**

Oslund, J.A. (2012). Stories of mathematical problem solving in professional learning communities. In L.R. Van Zoest, J.J. Lo, and J.L. Kratky (Eds.), *Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Kalamazoo, MI: Western Michigan University, November 1-4, 2012.

## 2011

## R305A110285

<u>Understanding Life Science: Improving Student Achievement by Deepening Teacher Content and Pedagogical Content Knowledge in Ways That Transform Instructional Practice</u>

WestED

Schneider, Steve

Jerome Shaw and Kirsten Daehler

Project Website: http://wested.org/us4t

## R305A110392

# <u>Learning to Use Formative Assessment in Mathematics with the Assessment Work Sample Method (AWSM)</u>

Mid-continent Research for Education and Learning (McREL)

Beesley, andrea

Kathleen Dempsey and Anne Tweed

Project Website: https://sites.google.com/site/awsmmath

**Publications:** 

## R305A110451

**Learning and Teaching Algebra (LTA)** 

Education Development Center, Inc. Cuoco, Albert Jess Gropen

Publications:

## R305A110491

<u>Japanese Structured Problem-Solving As a Resource for U.S. Elementary Mathematics</u> <u>Teachers: Program Development and Testing</u>

Mills College Lewis, Catherin Rebecca Perry

Related IES Projects: <u>Focused and Coherent Elementary Mathematics</u>: <u>Japanese Curriculum Resources for U.S. Teachers</u> (R305A110500)

**Publications:** 

## R305A110515

Making Sense of SCIENCE: Efficacy Study of a Professional Development Series for Middle School Science Teachers

WestEd

Schneider, Steve

Kirsten Daehler (WestEd) and Joan Heller (Heller Research Associates)

Project Website: http://we-msspdstudy.weebly.com/

# TEACHER QUALITY: READING AND WRITING

## 2003

## R305M030052

<u>Teacher Quality Study: An Investigation of the Impact of Teacher Study Groups as a Means to Enhance The Quality of Reading Instruction for First Graders in High Poverty Schools in Two States</u>

RG Research Group DBA Instructional Research Group Gersten, Russell

Related IES Projects: <u>Impact of Teacher Study Groups as Observed Teaching Practice and Student Vocabulary Knowledge: A Multi-Site Randomized Control Trial in First Grade</u> (R305A090294)

## **Publications:**

Dimino, J., and Taylor, M.J. (2009). *Learning How to Improve Vocabulary Instruction Through Teacher Study Groups*. Baltimore, MD: Paul H. Brookes.

Gersten, R., and Dimino, J.A. (2006). RTI (Response To Intervention): Rethinking Special Education For Students With Reading Difficulties (Yet Again). *Reading Research Quarterly*, 41(1): 99-108.

Gersten, R., Dimino, J., and Jayanthi, M. (2007). Towards the Development of a Nuanced Classroom Observational System for Studying Comprehension and Vocabulary Instruction. In B. Taylor and J. Ysseldyke (Eds.), *Educational Interventions for Struggling Readers* (pp. 381–425). New York, NY: Teachers College Press.

Gersten, R., Dimino, J., Jayanthi, M., Kim, J, and Santoro, L. (2010). <u>Teacher Study Group: Impact of the Professional Development Model on Reading Instruction and Student Outcomes in First Grade Classrooms</u>. *American Educational Research Journal*, *47*(3): 694-739.

## R305M030090

<u>Identifying Key Components of Effective Professional Development in Reading for First-Grade Teachers and Their Students</u>

University of Michigan Carlisle, Joanne F.

#### **Publications:**

Carlisle, J.F., Cortina, K.S., and Katz, L.A. (2011). <u>First-Grade Teachers Response to Three Models of Professional Development in Reading</u>. *Reading and Writing Quarterly*, 27(3): 212-238.

Carlisle, J.F., and Berebitsky, D. (2011). <u>Literacy Coaching as a Component of Professional Development.</u> <u>Reading and Writing: An Interdisciplinary Journal</u>. *Reading and Writing: An Interdisciplinary Journal*, 24(7): 773-800.

## R305M030099

<u>Mastering Reading Instruction: A Professional Development Project for First Grade Teachers</u>

Haskins Laboratories

Brady, Susan

Project Website: http://www.haskins.yale.edu/mrin/press.html.

#### **Publications:**

Brady, S., Gillis, M., Smith, T., Lavalette, M., Liss-Bronstein, L., Lowe, E., North, W., Russo, E., and Wilder, T.D. (2009). <u>First Grade Teachers' Knowledge of Phonological Awareness and Code Concepts: Examining Gains From an Intensive Form of Professional Development</u>. *Reading and Writing: An Interdisciplinary Journal*, 22(4): 425–455.

## 2004

## R305M040032

Improving Teacher Quality to Address the Language and Literacy Skills of Latino Children in Pre-Kindergarten Programs

University of North Carolina, Chapel Hill

Buysse, Virginia

#### **Publications:**

Buysse, V., Castro, D.C., and Peisner-Feinberg, E. (2010). <u>Effects of a Professional Development Program on Classroom Practices and Outcomes for Latino Dual Language Learners</u>. *Early Childhood Research Quarterly*, 25(1): 94–206.

Castro, D.C., Peisner-Feinberg, E., and Buysse, V. (2010). Language and Literacy Development in Latino Dual Language Learners: Promising Instructional Practices. In O. Saracho and B. Spodek (Eds.), *Language and Cultural Diversity in Early Childhood Education* (pp. 65–93). Charlotte, NC: Information Age.

Castro, D.C., Páez, M., Dickinson, D., and Frede, E. (2011). Promoting Language and Literacy in Dual Language Learners: Research, Practice and Policy. *Child Development Perspectives*, *5*(1):15-21.

Gillanders, C. and Castro, D.C. (2011) <u>Storybook Reading for Young English Language Learners</u>. *Young Children*, 66(1): 91-95.

## R305M040086

<u>Can Literacy Professional Development be Improved with Web-based Collaborative Learning Tools: A Randomized Field Trial</u>

University of Chicago

Bryk, Anthony

## **Publications:**

Atteberry, A., and Bryk, A.S. (2010). Analyzing the Role of Social Networks in School-Based Professional Development Initiatives. In A.J. Daly (Ed.), *The Ties of Change: Social Network Theory and Application in Education*. Cambridge, MA: Harvard Press.

Atteberry, A., Bryk, A.S., and Walker, L. (2011). <u>Analyzing Teacher Engagement in Literacy Coaching</u> Activities. *Elementary School Journal*. *112*(2): 356-382.

Biancarosa, G., Bryk, A.S., and Dexter, E. (2010). <u>Assessing the Value-added Effects of Literacy</u> <u>Collaborative Professional Development on Student Learning</u>. *Elementary School Journal*, 111(1): 7–34.

## R305M040121

# Assessing Teacher Effectiveness: How Can We Predict Who Will Be a High Quality Teacher?

Florida State University Harris, Douglas

#### **Publications:**

Harris, D. (2008). <u>The Policy Uses and Policy Validity of Value-Added and Other Teacher Quality Measures</u>. In D.H. Gitomer (Ed.), *Measurement Issues and the Assessment of Teacher Quality*. (pp. 99–130). Thousand Oaks, CA: SAGE Publications.

Harris, D., and Rutledge, S. (2010). <u>Models and Predictors of Teacher Effectiveness: A Review of the Evidence with Lessons from (and for) Other Occupations</u>. *Teachers College Record*, *112*(3): 914-960.

Harris, D., and Sass, T. (2007). <u>Teacher Training, Teacher Quality, and Student Achievement</u>. National Center for the Analysis of Longitudinal Data in Education Research (CALDER). Working Paper #3. Washington, DC: Urban Institute.

Rutledge, S., and Harris, D. (2008). <u>Certify, Blink, Hire: An Examination of the Process and Tools of Teacher Selection</u>. *Leadership and Policy in Schools*, 7(3): 237–263.

## R305M040167

## <u>Professional Development in Early Reading (Classroom Links to Early Literacy)</u> Purdue University

Powell, Douglas

Related IES Projects: <u>Classroom Links to Vocabulary and Phonological Sensitivity Skills</u> (R305B070605)

#### **Publications:**

Diamond, K.E., Gerde, H.K., and Powell, D.R. (2008). <u>Development in Early Literacy Skills during the Pre-Kindergarten Year in Head Start: Relations between Growth in Children's Writing and Understanding of Letters</u>. *Early Childhood Research Quarterly, 23*: 467–478.

Douglas R.P. and Diamond, K.E. (2011). Improving the Outcomes of Coaching-Based Professional Development Interventions. In D. K. Dickinson and S. B. Neuman (Eds.), *Handbook of Early Literacy Research: Vol. 3* (pp. 295-307). New York, NY: Guilford.

Gerde, H.K., and Powell, D.R. (2009). <u>Teacher Education</u>, <u>Book-Reading Practices</u>, <u>and Children's</u> Language Growth across One Year of Head Start. *Early Education and Development*, 20(2): 211–237.

Powell, D.R., Diamond, K.E., and Koehler, M.J. (2010). <u>Use of a Case-Based Hypermedia Resource in an Early Literacy Coaching Intervention with Pre-Kindergarten Teachers</u>. *Topics in Early Childhood Special Education*, 29(4): 239–249.

Powell, D.R., Diamond, K.E., Bojczyk, K.E., and Gerde, H.K. (2008). Head Start Teachers' Perspectives on Early Literacy. *Journal of Literacy Research*, 40: 422–460.

Powell, D. R., Diamond, K. E., Burchinal, M. R., and Koehler, M.J. (2010). Effects Of An Early Literacy Professional Development Intervention On Head Start Teachers and Children. *Journal Of Educational Psychology*, *102*(2): 299-312

## R305M040186

**Teacher Licensure Tests and Student Achievement** 

RAND Corporation Buddin, Richard

## **Publications:**

Buddin, R. and Zamarro, G. (2009). Teacher Qualifications and Student Achievement in Urban Elementary Schools, *Journal of Urban Economics*, 66(2): 103–115.

## 2005

## R305M050003

Connecting Primary Grade Teacher Knowledge to Primary Grade Student Achievement: Developing the Evidence-Based Reading/Writing Teacher Knowledge Assessment System

Utah State University

Reutzel, D. Ray

Janice A. Dole (University of Utah)

## **Publications:**

Reutzel, D. R., Dole, J. A., Read, S., Fawson, P., Herman, K., Jones, C. D., ... and Fargo, J. (2011). Conceptually and Methodologically Vexing Issues in Teacher Knowledge Assessment. *Reading & Writing Quarterly*, 27(3), 183-211.

## R305M050021

<u>Teaching Teachers to Teach Critical Reading Strategies (CREST) through an Intensive</u> Professional Development Model

University of Texas, San Antonio Sailors, Misty W. Janis Harmon

## **Publications:**

Sailors, M. (2007). Supporting Teachers Through an Intensive Professional Development Model. In *Supporting Student Success*. Corpus Christi, TX: CEDER Yearbook.

Sailors, M. (2008). Improving Comprehension Instruction through Quality Professional Development. In S.E. Israel and G.G. Duffy (Eds.), *Handbook of Research on Reading Comprehension*. Mahwah, NJ: Erlbaum.

Sailors, M. and Price, L. (2010). <u>Professional Development That Supports The Teaching Of Cognitive</u> Reading Strategy Instruction. *The Elementary School Journal*, 110(3): 301–322.

## R305M050026

**Examining the Efficacy of Two Models of Preschool Professional Development in Language** and Literacy

Education Development Center, Inc.

Clark-Chiarelli, Nancy

Project Website: <a href="http://ccf.edc.org/Projects/projDetail.asp?projID=3662">http://ccf.edc.org/Projects/projDetail.asp?projID=3662</a>

**Publications:** 

## R305M050031

A Randomized Controlled Study of the Efficacy of Reading Apprenticeship Professional Development for High School History and Science Teaching and Learning

WestEd

Greenleaf, Cynthia

Steve Schneider (WestED) and Joan Herman (UCLA)

## **Publications:**

Schoenbach, R., Greenleaf, C., and Murphy, L. (2012). *Reading for Understanding: How Reading Apprenticeship Improves Disciplinary Learning in Secondary and College Classrooms*. John Wiley & Sons.

## R305M050086

Embedded Classroom Multimedia: Improving Implementation Quality and Student Achievement in a Cooperative Writing Program

Success for All Foundation Madden, Nancy A

## **Publications:**

Madden, N. A., Slavin, R. E., Logan, M., and Cheung, A. (2011). Effects of Cooperative Writing with Embedded Multimedia: A Randomized Experiment. *Effective Education*, *3*(1), 1-9.

Slavin, R.E., Madden, N.A., Chambers, B., and Haxby, B. (2009). 2 Million children: Success for All (2nd ed.). Thousand Oaks, CA US: Corwin Press.

## R305M050087

## Assessment of Pedagogical Knowledge of Teachers of Reading

Regents of the University of Michigan

Carlisle, Joanne F.

Brian Rowan

#### **Publications:**

Carlisle, J.F., Kelcey, B., Berebitksy, D., and Phelps, G. (2011). <u>Embracing the Complexity of Instruction:</u> a <u>Study of the Effects of Teachers' Instruction on Students' Reading Comprehension</u>. *Scientific Studies of Reading*, *15*(5):409-439.

Kelcey, B. (2011). Assessing The Effects Of Teachers' Reading Knowledge On Students' Achievement Using Multilevel Propensity Score Stratification. *Educational Evaluation and Policy Analysis*, *33*(4): 458-482.

## R305M050121

**Enhancing the Quality of Expository Text Instruction through Content and Case-Situated Professional Development** 

Texas A and M University

Simmons, Deborah

William Rupley (Texas A&M University) and Sharon Vaughn (University of Texas – Austin)

## **Publications:**

Hairrell, A., Rupley, W.H., and Simmons, D. (2011). The State Of Vocabulary Research. *Literacy Research and Instruction*, 50(4): 253-271.

Hairrell, A., Rupley, W.H., Edmonds, M., Larsen, R., Simmons, D., Willson, V., and ... Vaughn, S. (2011). Examining The Impact Of Teacher Quality On Fourth-Grade Students' Comprehension and Content-Area Achievement. *Reading and Writing Quarterly: Overcoming Learning Difficulties*, 27(3): 239-260.

Simmons, D., Hairrell, A., Edmonds, M., Vaughn, S., Larsen, R., Willson, V., Rupley, W.H., and Byrns, G. (2010). A Comparison Of Multiple-Strategy Methods: Effects On Fourth-Grade Students' General and Content-Specific Reading Comprehension and Vocabulary Development. *Journal Of Research On Education Effectiveness*, *3*(2): 121-156.

## R305M050122

Identifying the Conditions Under which Large Scale Professional Development Policy
Initiatives are Related to Teacher Knowledge, Instructional Practices, and Student Reading
Outcomes

Florida State University

Roehrig, Alysia D.

Mary Brownell (University of Florida), Christopher Schatschneider (Florida State University), and Joseph Torgesen (Florida State University)

Roehrig, A.D., Turner, J.E., Grove, C.M., Schneider, N., and Liu, Z. (2009). <u>Degree of Alignment Between Beginning Teachers' Practices and Beliefs About Effective Classroom Practices</u>. *The Teacher Educator*, 44: 164–187.

Roehrig, A.D., Duggar, S.W., Moats, L., Glover, M., and Mincey, B. (2008). <u>When Teachers Work to Use Progress Monitoring Data to Inform Literacy Instruction: Identifying Potential Supports and Challenges</u>. *Remedial and Special Education, 29*: 364–382.

Roehrig, A.D., Bohn, C.M., Turner, J.E., and Pressley, M. (2008). <u>Mentoring Beginning Primary Teachers for Exemplary Teaching Practices</u>. *Teaching and Teacher Education, 24*: 684–702.

## 2006

## R305W060016

The Pathway Project: A Cognitive Strategies Approach to Reading and Writing Instruction for Teachers of Secondary English Language Learners
University of California, Irvine
Olson, Carol

#### **Publications:**

Kim, J.S., Olson, C.B., Scarcella, R., Kramer, J., Pearson, M., van Dyk, D., Collins, P., and Land, R.E. (2011). <u>A Randomized Experiment of a Cognitive Strategies Approach to Text-Based Analytical Writing for Mainstreamed Latino English Language Learners in Grades 6 to 12</u>. *Journal of Research on Educational Effectiveness*, 4(3): 231-263.

Olson, C.B., Kim, J.S., Scarcella, R., Kramer, J., Pearson, M., van Dyk, D.A., Collins, P., and Land, R.E. (2012). Enhancing the Interpretive Reading and Analytical Writing of Mainstreamed English Learners in Secondary School: Results from a Randomized Field Trial Using a Cognitive Strategies Approach. *American Educational Research Journal*, 49(2): 323-355.

## R305W060024

Enhancing Knowledge Related to Research-Based Early Literacy Instruction Among Pre-Service Teachers

State University of New York, Albany Scanlon, Donna

## **Publications:**

Scanlon, D.M., Anderson, K.L., and Sweeney, J. M. (2010). *Early Intervention For Reading Difficulties: The Interactive Strategies Approach*. Guilford Press.

## R305W060027

Content-Focused Coaching (SM) for High Quality Reading Instruction

University of Pittsburgh Matsumura, Lindsay Clare

## **Publications:**

Matsumura, L.C., Garnier, H.E., and Spybrook, J. (2012). <u>The Effect of Content-Focused Coaching on the Quality of Classroom Text Discussions</u>. *Journal of Teacher Education*, 63(3): 214-228.

Matsumura, L., Garnier, H.E., and Spybrook, J. (2013). Literacy Coaching To Improve Student Reading Achievement: A Multi-Level Mediation Model. *Learning and Instruction*, 25: 35-48.

Matsumura, L.C., Garnier, H.E., Correnti, R., Junker, B., and Bickel, D.D. (2010). <u>Investigating the Effectiveness of a Comprehensive Literacy-Coaching Program in Schools with High Teacher Mobility</u>. *Elementary School Journal*, *111*(1): 35-62.

Matsumura, L.C., Garnier, H.E., Resnick, L.B. (2010). <u>Implementing Literacy Coaching: The Role of School Social Resources.</u> *Educational Evaluation and Policy Analysis, 32*(2): 249-272.

Matsumura, L.C., Sartoris, M., Bickel, D.D., and Garnier, H.E. (2009). <u>Leadership for Literacy Coaching:</u> <u>The Principal's Role in Launching a New Coaching Program.</u> *Educational Administration Quarterly,* 45(5): 655–693.

## R305W060064

Standards-based Differentiated ELD Instruction to Improve English Language Arts
Achievement for English Language Learners
California State University Long Beach Foundation
Goldenberg, Claude

**Publications:** 

# 2007 R305B070605

<u>Classroom Links to Vocabulary and Phonological Sensitivity Skills</u> Purdue University Powell, Douglas

Related IES Projects: <u>Professional Development in Early Reading (Classroom Links to Early Literacy)</u> (R305M040167)

#### **Publications:**

Baroody, A.E., and Diamond, K.E. (2013). Measures Of Preschool Children's Interest and Engagement In Literacy Activities: Examining Gender Differences and Construct Dimensions. *Early Childhood Research Quarterly*, 28(2): 291-301.

Diamond, K.E., and Powell, D.R. (2011). An Iterative Approach To The Development Of A Professional Development Intervention For Head Start Teachers. *Journal Of Early Intervention*, *33*(1): 75-93

O'Leary, P.M., Cockburn, M.K., Powell, D.R., and Diamond, K.E. (2010). Head Start Teachers' Views Of Phonological Awareness and Vocabulary Knowledge Instruction. *Early Childhood Education Journal*, *38*(3): 187-195.

## 2008

## R305A080005

## The Iterative Design of Modules to Support Reading Comprehension Instruction

University of Pittsburgh

Kucan, Linda

Annemarie Palincsar (University of Michigan)

#### **Publications:**

Kucan, L., and Palincsar, A.S. (2011). Text-Based Discussion: The Case of Reading. *Teacher's College Record*, 113(12): 2989–2922.

Kucan, L., Hapgood, S., and Palincsar, A.S. (2011). <u>Teachers' Specialized Knowledge for Supporting Student Comprehension in Text-Based Discussions</u>. *Elementary School Journal*, *112*(1): 61–82.

Kucan, L., Palincsar, A.S., Khasnabis, D., and Chang, C. (2009). <u>The Video Viewing Task: A Source of Information for Assessing and Addressing Teacher Understanding of Text-Based Discussion</u>. *Teaching and Teacher Education*, *25*: 415–423.

## R305A080295

# **Development of an Interactive, Multimedia Assessment of Teachers' Knowledge of Early Reading**

University of Michigan Carlisle, Joanne F.

#### **Publications:**

Carlisle, J. F., Kelcey, B., Rosaen, C., Phelps, G., and Vereb, A. (2013). A Framework for Analysis of Case Studies of Reading Lessons. *Journal of Education and Training Studies*, 1(2), 224-238.

Rosaen, C. L., Carlisle, J. F., Mihocko, E., Melnick, A., and Johnson, J. (2013). Teachers Learning from Analysis of Other Teachers' Reading Lessons. *Teaching and Teacher Education*, *35*, 170-184.

#### R305A080560

# <u>Value-Added Models and the Measurement of Teacher Quality: Tracking or Causal Effects?</u>

National Bureau of Economic Research Rothstein, Jesse

## **Publications:**

Rothstein, J. (2009). Student Sorting and Bias in Value-Added Estimation: Selection on Observables and Unobservables. *Education*, 4(4), 537-571.

Rothstein, J. (2010). Teacher Quality in Educational Production: Tracking, Decay, and Student Achievement. *The Quarterly Journal of Economics*, 125(1), 175-214.

## 2009

## R305A090294

Impact of Teacher Study Groups as Observed Teaching Practice and Student Vocabulary Knowledge: A Multi-Site Randomized Control Trial in First Grade

PG Research Group DBA Instructional Research Group Gersten, Russell

Related IES Projects: <u>Teacher Quality Study</u>: <u>An Investigation of the Impact of Teacher Study</u> Groups as a Means to Enhance The Quality of Reading Instruction for First Graders in High Poverty Schools in Two States (R305M030052)

**Publications:** 

## 2010

## R305A100641

<u>Validation of an Assessment of Teacher Knowledge of Beginning Reading Instruction</u>
American Institutes for Research
Salinger, Terry

**Publications:** 

#### R305A100654

The Targeted Reading Intervention: A Web-Based Professional Development Program

Targeting K-1 Classroom Teachers and their Struggling Readers

University of North Carolina, Chapel Hill Vernon-Feagans, Lynne

Related IES Projects: National Research Center on Rural Education Support (R305A040056)

**Publications:** 

## 2011

## R305A110864

Improving the Quality of English Language Arts Teaching through the Use of an Observation Protocol

Board of Trustees of the Leland Stanford Junior University Grossman, Pamela Susan O'Hara and Susanna Loeb

#### **Publications:**

Hill, H.C., and Grossoman, P. (2013). Learning From Teacher Observations: Challenges and Opportunities Posed By New Teacher Evaluation Systems. *Harvard Educational Review*, 83(2): 371-384.

## UNSOLICITED AND OTHER AWARDS

## 2002

## R305W020002

Scaling Up a Language and Literacy Development Program at the Pre-Kindergarten Level University of Texas Health Science Center at Houston Program Landry, Susan H.

## **Publications:**

Landry, S.H., Anthony, J.L., Swank, P.R., and Monseque-Bailey, P. (2009). Effectiveness of Comprehensive Professional Development for Teachers of At-Risk Preschoolers. *Journal of Educational Psychology*, 101(2): 448–465.

## R305W020001

<u>Scaling Up an Assessment-Driven Intervention Using the Internet and Hand-held Computers</u>

Florida State University Foorman, Barbara

## **Publications:**

Francis, D.J., Santi, K.L., Fletcher, J.M., Varisco, A., and Foorman, B. (2008). <u>Form Effects On The Estimation Of Students' Oral Reading Fluency Using DIBELS</u>. *Journal Of School Psychology, 46*(3): 315–342.

Foorman, B.R., and Al Otaiba, S. (2009). Reading Remediation: State Of The Art. In K. Pugh, P. Mccardle (Eds.), How Children Learn To Read: Current Issues and New Directions In The Integration Of Cognition, Neurobiology and Genetics Of Reading and Dyslexia Research and Practice (pp.257-274). New York, NY US: Psychology Press.

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Foorman, B.R., York, M., Santi, K.L., and Francis, D.J. (2008). Contextual Effects On Predicting Risk For Reading Difficulties In First and Second Grade. *Reading and Writing*, *21*(4): 371-394.

Santi, K.L., York, M., Footman, B.R., and Francis, D.J. (2009). The Timing Of Early Reading Assessment In Kindergarten. *Learning Disability Quarterly*, *32*(4): 217-227.

York, M.J., Foorman, B.R., Santi, K.L., and Francis, D.J. (2011). Effects Of Technology Enhancements and Type Of Teacher Support On Assessing Spanish-Speaking Children's Oral Reading Fluency In Second Grade. *Assessment For Effective Intervention*, *37*(1): 3-16.

## R305W020003

Implementation and Impact of Reading, Mathematics and Science Interventions for Middle and High School Students in the Context of Talent Development Reforms

Johns Hopkins University

McPartland, James

#### **Publications:**

Balfanz, R., Herzog, L., and Mac Iver, D.J. (2007). Preventing Student Disengagement and Keeping Students On The Graduation Path In Urban Middle-Grades Schools: Early Identification and Effective Interventions. *Educational Psychologist*, 42(4): 223-235.

Byrnes, V. (2009). Getting A Feel For The Market: The Use Of Privatized School Management In Philadelphia. *American Journal Of Education*, 115(3): 437-455.

Byrnes, V., and Ruby, A. (2007). Comparing Achievement Between K–8 and Middle Schools: A Large-Scale Empirical Study. *American Journal Of Education*, 114(1): 101-135.

Ruby, A. (2006). Improving Science Achievement At High-Poverty Urban Middle Schools. *Science Education*, *90*(6): 1005-1027.

# 2003 R305J030120

**Building Language for Literacy and Core Knowledge** 

Georgetown University Ramey, Sharon

#### **Publications:**

Ramey, C.T., Ramey, S.L., and Stokes, B.R. (2009). Effective Pre-K Programs: Research Evidence About Program Dosage and Student Achievement. In R. Pianta (Ed.), *Pre-Kindergarten in the United States*. (pp. 79–105) Baltimore, MD: Paul H. Brookes Publishing.

Ramey, S.L., and Ramey, C.T. (2007). Establishing a Science of Professional Development for Early Education Programs: The Knowledge Application Information Systems (KAIS) Theory of Professional Development. In L.M. Justice and C. Vukelich (Eds.) *Achieving excellence in preschool language and literacy instruction*. (pp. 41–63) New York, NY: Guilford Press.

Ramey, S.L., Crowell, N.A., Ramey, C. T., Grace, C., Timraz, N., and Davis, L.E. (2011). The Dosage Of Professional Development For Early Childhood Professionals: How The Amount and Density Of Professional Development May Influence Its Effectiveness. *Advances in Early Education and Day Care*, 15: 11-32.

Ramey, S.L., Ramey, C.T., and Lanzi, R.G. (2004). The Transition to School: Building on Preschool Foundations and Preparing for Lifelong Learning. In E. Zigler and S.J. Styfco (Eds.), *The Head Start Debates* (pp. 397–413). Baltimore, MD: Paul H. Brookes.

## R305W030036

The New 3R's – Reading, Resilience, and Relationships in After-School Programs
McLean Hospital
Noam, Gil

## **Publications:**

Pierce, M.E., Katzir, T., Wolf, M., and Noam, G.G. (2007). <u>Clusters of Second and Third Grade Dysfluent Urban Readers</u>. *Reading and Writing*, 20 (9): 885–907.

## R305W030257

# Scaling-up Effective Intervention for Preventing Reading Difficulties in Young Children

Southern Methodist University

Mathes, Patricia

Carolyn Denton (University of Texas at Austin)

#### **Publications:**

Denton, C.A. (2006). Responsiveness To Intervention As An Indication Of Learning Disability. *Perspectives*, *32*(1): 4–7.

Denton, C.A., and Hocker, J.K. (2006). *Responsive Reading Instruction: A Small-Group Reading Intervention For Students In Grade 1*. Longmont, CO: Sopris West.

Denton, C.A., Swanson, E.A., and Mathes, P.G. (2007). <u>Assessment-Based Instructional Coaching Provided To Reading Intervention Teachers</u>. *Reading and Writing*, *20*(6): 569–590.

Denton, C.A., Mathes, P.G., Swanson, E., Nimon, K., and Kethley, C. (2010). <u>Effectiveness Of A Supplemental Early Reading Intervention Scaled Up In Multiple Schools</u>. *Exceptional Children*, 76 (4): 394–416.

Hasbrouck, J., and Denton, C.A. (2007). Student-Focused Coaching: A Model For Reading Coaches. *The Reading Teacher*, 60(7): 690–693.

Mathes, P.G., Denton, C.A., and Kethley, C. (In Press). *Taking Effective Reading Interventions To Scale: A Saga*. ERS Spectrum.

Hasbrouch, J.E., and Denton, C.A. (2005). *The Reading Coach: A How-To Manual For Success*. Longmont, CO: Sopris West.

#### **Curriculum Products:**

Mathes, P.G., Denton, C.A., and Cuevas, A. (2008). *The Coaching Solution*. Dallas, TX: Southern Methodist University. [Web-based teacher support and professional development platform].

Denton, C.A. (2004). *The Virtual Reading Coach*. Austin, TX: University of Texas. [Web-delivered coaching program to provide coaching support to reading intervention teachers.]

## 2004

## R305U040005

**Enhanced Value-Added Models for Estimating Teacher Effects** 

**RAND Corporation** 

Lockwood J.R.

## **Publications:**

Lockwood, J.R., Mccaffrey, D.F., Hamilton, L.S., Stecher, B., Le, V., and Martinez, J. (2007). The Sensitivity Of Value-Added Teacher Effect Estimates To Different Mathematics Achievement Measures. *Journal Of Educational Measurement*, 44(1): 47-67.

Lockwood, J.R., Mccaffrey, D.F., Mariano, L.T., and Setodji, C. (2007). Bayesian Methods Scalable Multivariate Value-Added Assessment. *Journal Of Educational and Behavioral Statistics*, 32(2): 125-150.

Mariano, L.T., Mccaffrey, D.F., and Lockwood, J.R. (2010). A Model For Teacher Effects From Longitudinal Data Without Assuming Vertical Scaling. *Journal Of Educational and Behavioral Statistics*, *35*(3): 253-279.

## R305U040006

Society for the Advancement of Education Sciences: A proposal for a new scientific organization

Cornell University
Constas, Mark
Larry Hedges (Northwestern University)

Project Website: http://www.sree-net.org/

**Publications:** 

## R305U040007

Representation and Combination of the Results of Multi-site Randomized Experiments in Education

Northwestern University Hedges, Larry

## **Publications:**

Hedges, L.V. (2007). <u>Correcting A Significance Test For Clustering</u>. *Journal Of Educational and Behavioral Statistics*, *32*(2): 151-179.

Hedges, L.V. (2007). Meta-Analysis. In C.R. Rao (Ed.), *The Handbook Of Statistics, Vol 26* (pp.919-953). Amsterdam: Elsevier.

Hedges, L.V. (2007). <u>Effect Sizes In Cluster Randomized Designs</u>. *Journal Of Educational and Behavioral Statistics*, 32(4): 341-370.

## 2005

## R305U050002

A One-Year Follow-Up Of Evidence-Based Early Reading Intervention Provided By Kindergarten and First Grade Teachers

Syracuse University Blachman, Benita Christopher Schatschneider

**Publications:** 

## 2006

## R305U060002

Assessing Intervention Fidelity in Randomized Field Experiments (RFTs)

Vanderbilt University Cordray, David S.

## **Publications:**

Nelson, M.C., Cordray, D.S., Hulleman, C.S., Darrow, C.L., and Sommer, E.C. (2012). A Procedure For Assessing Intervention Fidelity In Experiments Testing Educational and Behavioral Interventions. *The Journal Of Behavioral Health Services and Research*, 39(4): 374-396.

## R305U060003

**Estimation of Teacher Effects** 

University of Washington Goldhaber, Dan Bethany Gross

**Publications:** 

## R305U060004

**Psychometrics and Value Added Modeling** 

American Institutes for Research Doran, Harold

## R305U060005

**Collaborative Research in Urban Education** 

Council of Great City Schools Casserly, Michael Jason Snipes

**Publications:** 

# 2007 R305U070001

Awards for Research in Cognition and Student Learning

University of Illinois Wiley, Jennifer

#### **Publications:**

Salden, R., Aleven, V., Renkly, A., and Schwonke, R. (2008). Worked Examples and Tutored Problem Solving: Redundant or Synergistic Forms of Support. In C. Schunn (Ed.), *Proceedings of the Annual Meeting of the Cognitive Science Society*. New York, NY: Lawrence Erlbaum.

Jackson, T.G., Guess, R.H., and McNamara, D.S. (2009). Assessing Cognitively Complex Strategy Use in an Untrained Domain. In N.A. Taatgen and H. van Rijn (Eds.), *Proceedings of the 31st Annual Conference of the Cognitive Science Society* (pp. 2164–2169). Austin, TX: Cognitive Science Society.

Oppenheimer, D. (2010). Fortune Favors the Bold (and the Italicized): Effects of Disfluency on Educational Outcomes. In S. Ohlsson and R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (pp. 2739-2742). Austin, TX: Cognitive Science Society.

Ramscar, M. (2011). How Children Learn to Value Numbers: Information Structure and the Acquisition of Numerical Understanding. In L. Carlson, C. Hoelscher, and T.F. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 2514-2519). Austin, TX: Cognitive Science Society.

Jamalian, A. (2012). Gestures Alter Thinking About Time. In N. Miyake, D. Peebles, and R.P. Cooper (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society* (pp. 503-508). Austin, TX: Cognitive Science Society.

## R305U070002

Assessing Reading in the 21st Century Conference: Aligning and Applying Advances in the Reading and Measurement Sciences

Educational Testing Service Sabatini, John

## **Publications:**

Sabatini, J.P., O'Reilly, T., and Albro, E.R. (2012). *Reaching an Understanding: Innovations in How we View Reading Assessment*. Rowman and Littlefield.

Sabatini, J.P., Albro, E.R., and O'Reilly, T. (2012). *Measuring Up: Advances in How We Assess Reading Ability*. Rowman and Littlefield Education.

## R305U070003

## **Improving Best Quasi-Experimental Practice**

Northwestern University Cook, Thomas

#### **Publications:**

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Northwestern University Hedges, Larry Mark Constas

Project Website: <a href="http://www.sree-net.org">http://www.sree-net.org</a>

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# **2010**

## R305U100001

A Three Year Proposal to conduct Two Annual Workshops on Better Quasi-Experimental Design and Analysis in Education

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**Continued Support of SREE** 

Northwestern University Hedges, Larry

# 2011 R305U110001

**RCT Training Institute** 

Michigan State University Konstantopoulos, Spyros Larry Hedges (Northwestern University)